SERVICE MANUAL 2130

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model 2130

Am/Fm Stereophonic Tuner

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Ontario, Canada L4V1M5

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Superscope (Australasia) Pty., Ltd.
32 Cross Street (P.O. Box 604)
Brookvale 2100 N.S.W.
Australia

JAPAN

Marantz Japan, Inc.
3622 Kamitsuruma
Sagamihara Shi
Kanagawa, Japan

EUROPE

Superscope Europe, S.A.
Avenue Leopold III, 2
7120 Peronnes-Lez-Binche
Belgium

Marantz France
Rue Louis Armand 9
92600 Asnieres
Hauts-de-Seine
France

Marantz Audio U.K. Ltd.
London Road, 203
Staines
Middlesex
England

Superscope GmbH
Max-Planck-Strasse 22
D-6072 Dreieich 1
West Germany

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please contact the nearest facility for the necessary assistance.

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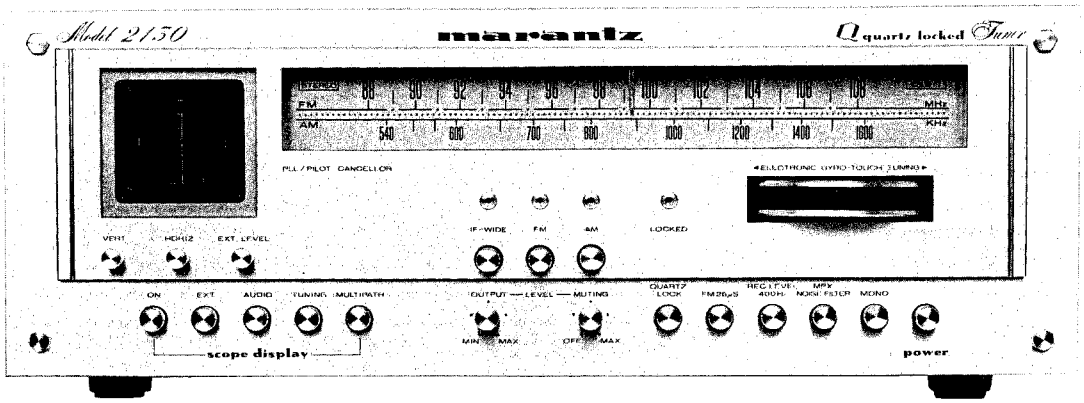
MODEL 2130 AM/FM STEREOPHONIC TUNER



INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2130 AM/FM Stereophonic Tuner.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operations in the tuner.

The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can usually be obtained through local suppliers.

1. P.W. BOARDS

As can be seen from the circuit diagram, the chassis of Model 2130 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. Front End . . . . . mounted on P.W. Board P100
2. AM Tuner & FM IF . . . mounted on P.W. Board P200
3. MPX Stereo Decoder . . mounted on P.W. Board P300
4. Power Supply . . . . . mounted on P.W. Board P800
5. Scope Amp . . . . . mounted on P.W. Board P900
6. Quartz Lock . . . . . mounted on P.W. Board PC50
7. Scope Display Switches . . . . . mounted on P.W. Board PR01
8. AM/FM/IF Wide Switches . . . . . mounted on P.W. Board PS01
9. Buffer Amp & Mode Switches . . . . . mounted on P.W. Board PT01
10. Function Indicator . . . mounted on P.W. Board PY01
11. Dial Lamp . . . . . mounted on P.W. Board PZ01
12. Dolby Socket . . . . . mounted on P.W. Board PK01

2. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model 2130 Tuner.

Item	Manufacturer and Model No.	Use
AM Signal Generator		Signal source for AM alignment
Test Loop		Use with AM Signal Generator
FM Signal Generator MPX Signal Generator	Sound Technology Model 1000A	Signal source for FM alignment Stereo separation alignment and trouble shooting
Distortion Analyzer Audio Oscillator AC VTVM	Sound Technology Model 1700A	Distortion measurements Sinewave and squarewave signal source Voltage measurements (AC)
Oscilloscope	Tektronix Model T932 Philips Model 3232	Waveform analysis and trouble shooting
Frequency Counter	Fluke Model 1900A	MPX Oscillator adjustment (VCO)
Circuit Tester		Trouble shooting
DC VTVM	Fluke Model 8000 "Digital" Simpson Model 313, Triplet Model 801	Voltage measurements (DC)
AC Wattmeter	Simpson Model 1379	Monitors primary power to tuner
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to tuner
Variable Autotransformer	Superior Electronic Co., Powerstat Model 116B–10A	Adjusts level of primary power to tuner

3. AM ALIGNMENT PROCEDURES

3.1 AM IF ALIGNMENT

1. Connect a sweep generator to the R155 (T.P.) and an alignment scope to the J207.
2. Rotate each core of IF transformers L153 and L154 for the maximum height and flat top symmetrical response.

3.2 AM FREQUENCY RANGE AND TRACKING ALIGNMENT

1. Set an AM signal generator to 515 kHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end) and adjust the oscillator coil L152 for maximum audio output.
2. Set the signal generator to 1650 kHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator tuning capacitor for maximum audio output.
3. Repeat steps 1 and 2 until no further adjustment is necessary.
4. Set the generator to 600 kHz and tune the tuner to the same frequency and adjust a slug core of AM ferrite-rod antenna L001 and RF coil L151 for maximum output.
5. Set the generator to 1400 kHz and tune the tuner to the same frequency and adjust both trimming capacitors of antenna and RF tuned circuit for maximum output.
6. Repeat steps 4 and 5 until no further adjustment is necessary.

NOTE: During tracking alignment reduce the signal generator output as necessary to avoid AGC action.

3.3 AM SIGNAL STRENGTH DISPLAY ALIGNMENT

Set an AM signal generator to 1000 kHz at 100 dB/m, and adjust R152 so that the spot may meet upper mark.

4. FM ALIGNMENT PROCEDURES

4.1 FM FREQUENCY RANGE AND TRACKING ALIGNMENT

1. Connect an FM signal generator to the FM ANTENNA terminals and an oscilloscope and an audio distortion analyzer to the OUTPUT jacks on the rear panel.
2. Set the signal generator to 87.4 MHz and provide about 3 to 5 μV. Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the core of oscillator coil L106 to obtain maximum audio output.
3. Set the signal generator to 109 MHz and provide about 3 to 5 μV output. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor C218 for maximum output.
4. Repeat steps 2 and 3 until no further adjustment is necessary.
5. Set the signal generator to 90 MHz and tune the tuner to the same frequency. Decrease the signal generator output until the audio output level decreases with the decreasing generator output. Adjust the antenna coil L101, RF coils L102, L103 and L104 and IF transformer L105 for minimum audio distortion.
6. Set the signal generator to 106 MHz and tune the tuner to the same frequency. Adjust the trimming capacitors of antenna and RF tuning circuits for minimum distortion.

7. Repeat steps 5 and 6 until no further adjustment is necessary.
8. Connect a VTVM (at DC 1 V range) across R206 (T.P.) and ground terminal. Adjust the discriminator transformer L206 so that the VTVM indicates null reading (zero reading) at no signal. Set the FM signal generator to 98 MHz and increase its output level 1 kμV and tune the tuner to the same frequency so that the VTVM gives null reading. Turn on the MONO and IF WIDE pushswitches and adjust the L205 for minimum distortion. (Scope display can, of course, be used as tuning indicator instead of the VTVM, if the scope unit has been correctly adjusted as instructed in the "Scope Display Adjustment".)
9. Set the signal generator to 98 MHz and provide about 3 to 5 μV output, and tune the tuner to the same frequency.
10. Set the IF WIDE pushswitch to the NARROW (OUT) position. Depress the SCOPE DISPLAY TUNING switch and adjust the L202 and L203 until the tuning bar becomes maximum.
11. Set the signal generator to 98 MHz at 100 kμV, and adjust RB11 so that the signal strength indicator spot just reaches upper mark.

4.2 PILOT CANCEL ALIGNMENT

1. Set the FM signal generator to provide 1 kμV at 98 MHz. Tune the tuner to the same frequency so that the center tuning indicator spot indicates its center.
2. Turn the signal generator modulation off (with the pilot carrier on), and adjust the R302 so that the S/N become maximum.

4.3 STEREO SEPARATION ALIGNMENT

1. Set the FM signal generator to provide 1 kμV at 98 MHz. Tune the tuner to the same frequency so that the center tuning indicator spot indicates its center.
2. Turn the signal generator modulation off (with the pilot signal turned on), connect a frequency counter to the R314 (T.P.), and adjust the R313 so that the frequency counter may precisely read 76 kHz.
3. Modulate the signal generator with stereo composite signal consisting only of subchannel signal (of course a pilot signal must be included).
4. Set the modulation frequency of the FM signal generator to 1 kHz. Turn on IF WIDE pushswitch and adjust the semifixed resistors R366 and R369 for maximum stereo separation. Similarly, turn off IF WIDE pushswitch and adjust the semifixed resistors R367 and R368 for maximum stereo separation.

4.4 MUTING CIRCUIT ALIGNMENT

1. Set the FM signal generator to provide 7 μV at 98 MHz and tune the tuner to the same frequency correctly.
2. Depress the FM MUTING pushswitch. Set the R003 to MIN position (CCW) and the RB47 to MAX (CCW). Adjust the RB10 until the muting circuit is activated to produce output for exactly 7 μV input.
3. In turn increase the FM signal generator output up to 50 μV.
4. Set the R003 to MAX position (CW). Adjust the RB47 until the muting circuit is activated to produce output for exactly 50 μV input.
5. Turn the R003 from MIN to MAX to assure the muting threshold level can change in the range of 7 to 50 μV.
6. Increase the FM signal generator output up to 1 kμV and shift its frequency to +80 kHz and −80 kHz. Adjust the R349 so that the muting circuit becomes off. Note both up- and down-shifted frequencies at which undesirable audio side responses are muted out. Turn on QUARTZ Lock pushswitch and observe the QUARTZ LED which synchronize with the muting circuit.

4.5 FM 25 μS OUTPUT LEVEL ADJUSTMENT

1. Set the modulation of FM signal generator to 400 Hz, 50% (±37.5 kHz Dev.).
2. Set the signal generator to provide 1 kμV at 98 MHz. Tune the tuner to the same frequency so that the center tuning indicator spot indicates its center.
3. Depress the FM 25 μS switch. Set the trimming resistors RT09 and RT10 so that the output of the OUTPUT jacks R and L become 580 mV at VTVM.

4.6 400 Hz TONE ALIGNMENT

1. Turn the OUTPUT LEVEL control to the MAX position (FCW), and depress the 400 Hz tone switch.
2. Adjust the semifixed resistor RT37 so that the output level become 580 mV at VTVM.

5. SCOPE DISPLAY ADJUSTMENT

1. Set the EXT LEVEL control to its fully counterclockwise position.
2. Depress the SCOPE DISPLAY ON and EXT pushswitches in.
3. Adjust the HORIZ and VERT controls to center the dot in the small circle in the center of the scope display.
4. Adjust the BRIGHT control (R007) on the rear panel until the brightness becomes dark a little.
5. Adjust the FOCUS control (R008) so that the spot may be come smaller and circular.
6. Turn the EXT LEVEL control to its fully clockwise position.
7. Connect a 150 mV, 1 kHz signal to the SCOPE INPUTS R jack and adjust R928 (H. GAIN) until the horizontal deflection is around 3 cm.
8. In turn, connect the same signal to the L jack and similarly, adjust R927 (V. GAIN) until the vertical deflection is around 8 cm.
9. Set the HORIZ and VERT controls to the 12-o'clock position and adjust R925 (H. CENTER) until the spot comes in the horizontal deflection center.
10. Similarly, adjust R926 (V. CENTER) until the spot comes in the vertical deflection center.

5.1 AM TUNING DISPLAY ADJUSTMENT

1. Depress the SCOPE DISPLAY ON, TUNING and AM pushswitches.
2. Adjust R931 until the spot comes in the center below the base line without tuning into a station.

5.2 FM TUNING DISPLAY ADJUSTMENT

1. Depress the SCOPE DISPLAY ON, TUNING and FM pushswitches.
2. Adjust the L213 so that the tuning bar becomes center at no signal.
3. Connect FM signal input of 100 kμV (98 MHz, 1 kHz, 100% mod.) to the FM ANTENNA terminals and adjust the RB11 so that the spot does not frame out.

5.3 FM MULTIPATH DISPLAY ADJUSTMENT

1. Adjust the L212 to obtain full deflection of the trace within both side marks, applying FM signal (1 kμV, 400 Hz, 100% mod.) to the FM ANTENNA terminals.

6. VOLTAGE CONVERSION FOR EUROPEAN MODEL

The European version of the Model 2130 is equipped with a universal power transformer that may be adjusted to operate at 110 V, 120 V, 220 V, or 240 V AC at 50 to 60 Hz. To convert the unit to a different power source voltage, reposition conversion plug at shown in Figure 1.

CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

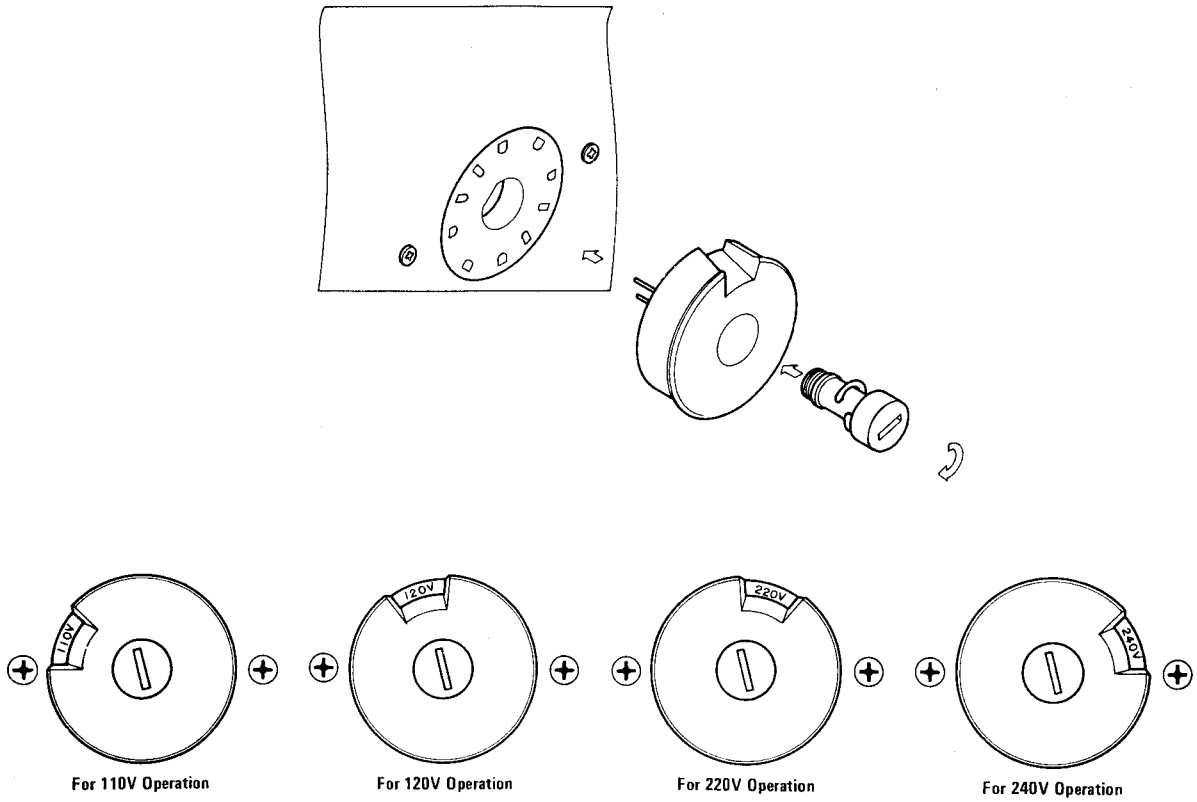


Figure 1. Voltage Conversion Chart

FTZ REGULATION

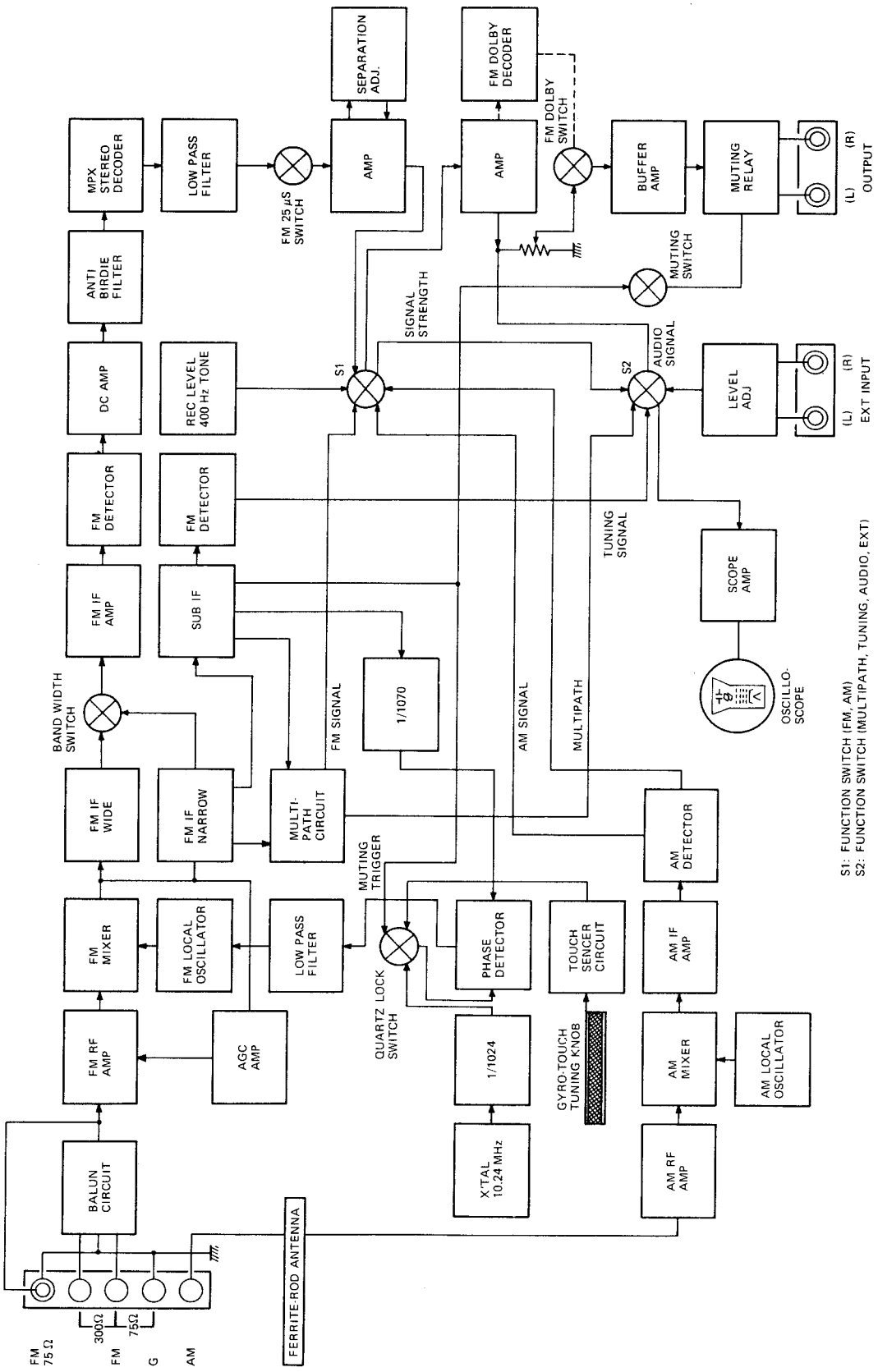
Instruction for the use in the range other than specified in FTZ codes.

Achtung für die Leute, die in dem Gebiet wohnen, wo die FTZ-Bestimmungen vorherrschend sind.

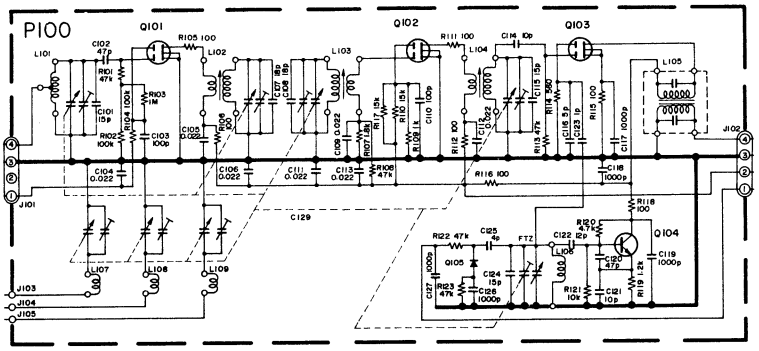
Sollte das Gerät auch für Frequenzen auszerhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangebereits ein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatorspule (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.

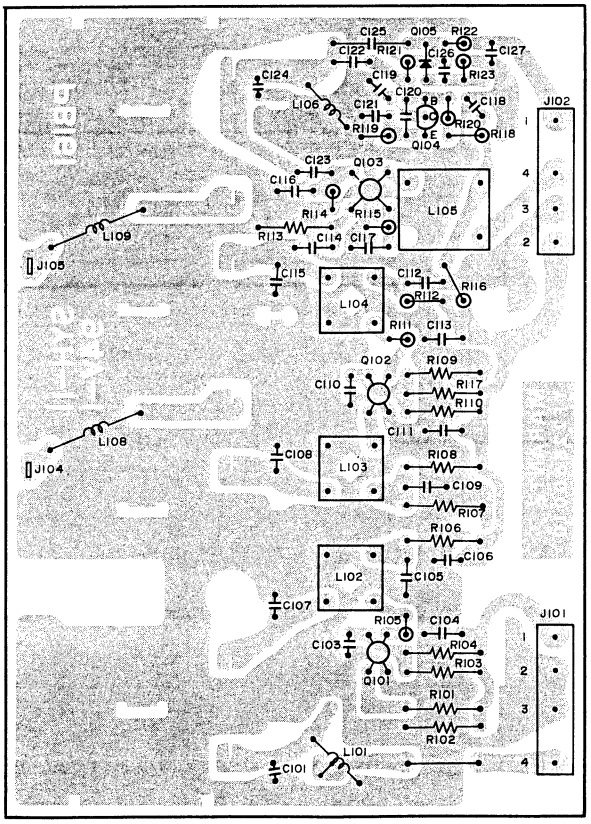
7. DIAGRAMS

7.1 BLOCK DIAGRAM

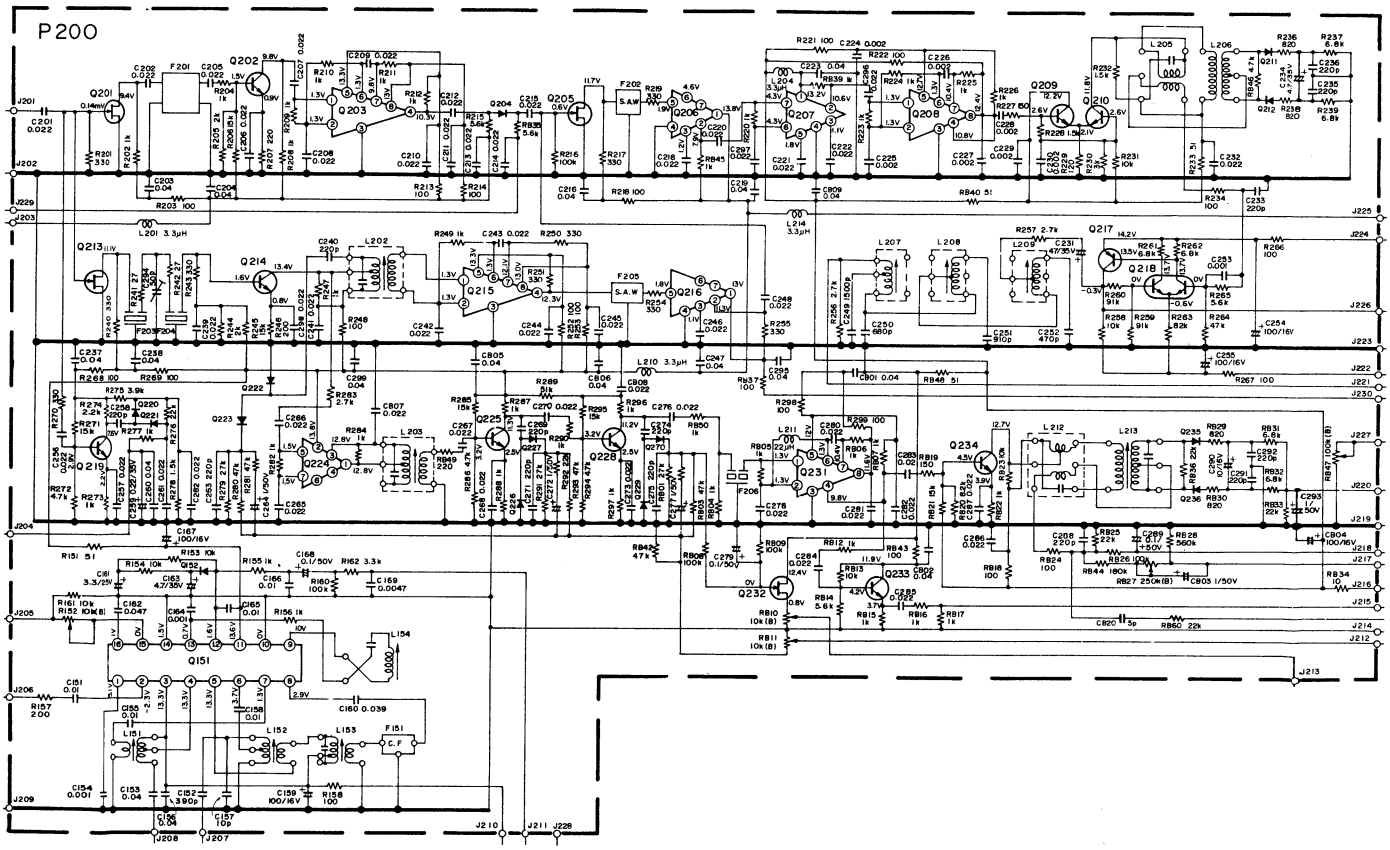


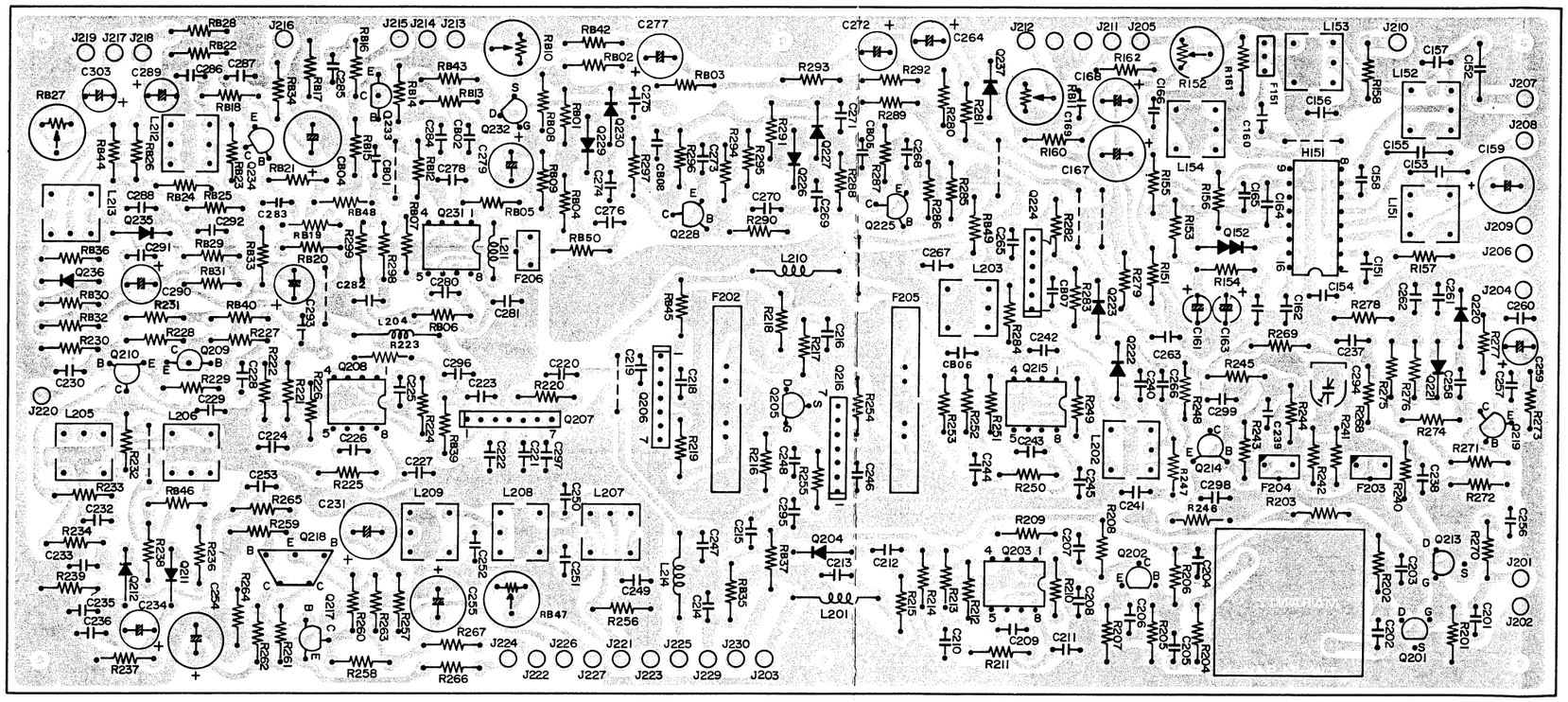
7.2 FRONT END BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P100



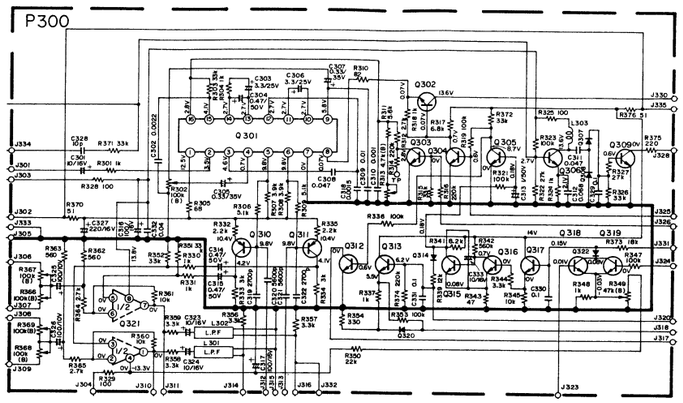


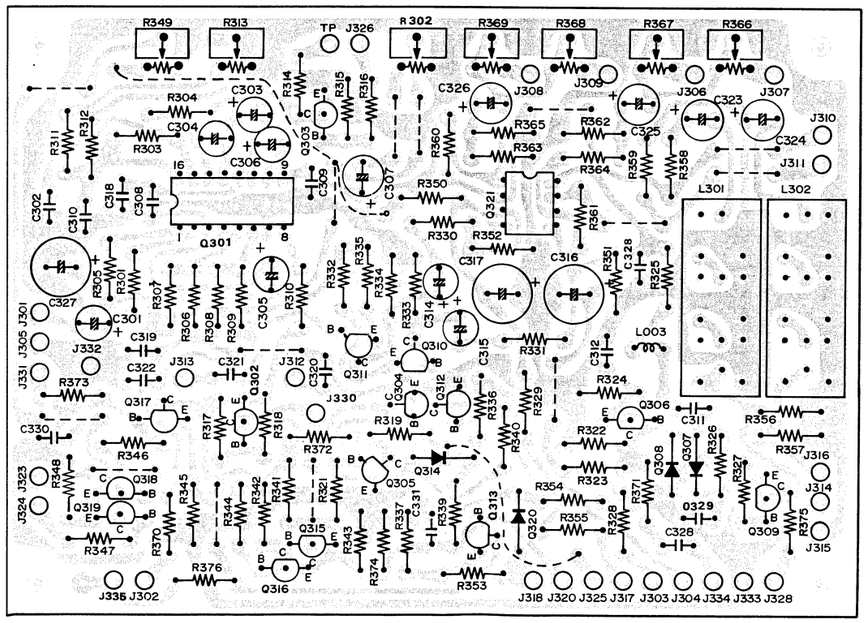
7.3 AM TUNER & FM IF BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P200



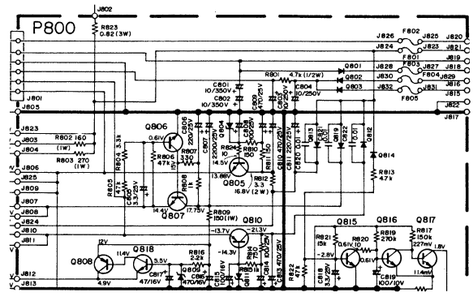

J219 J217 J218 J216 J215 J214 J213 J212 J211 J205 J210
C303 C289 C287 C286 C285 C277 C272 C264 C168 C157 C152
R828 R822 R818 R816 R814 R813 R843 R842 R802 R803 R293 R292 R289 R290 R162 R152 R161 R156
R827 R844 R834 R817 R821 R810 R808 R801 R809 R804 R805 R850 R276 R294 R295 R291 R227 R226 R160 R155 R153 R154 R157
Q232 Q233 Q234 Q229 Q230 Q228 Q237 Q224 Q225 Q223 Q222 Q152
C278 C279 C802 C804 C801 C808 C805 C271 C273 C274 C276 C270 C269 C267 C265 C263 C262 C261 C260
L212 L213 L211 L210 L203 L204 L202 L201 L214 L205 L206 L207 L208 L209
F206 F202 F205 F204 F203 F151
H151 L153 L154 L152 L151
C283 C282 C281 C280 C292 C291 C290 C293 C296 C220 C223 C224 C225 C226 C227 C222 C253 C265 C259 C232 C233 C234 C235 C236 C254 C231 C252 C251 C250 C249 C247 C215 C216 C217 C218 C219 C206 C212 C213 C214 C208 C207 C209 C210 C211 C241 C242 C243 C244 C246 C240 C299 C298 C238 C239 C237 C294 C295 C296 C297 C256 C203 C204 C205 C201 C202 C151 C154 C162 C163 C164 C165 C166 C167 C169 C161 C159 C158 C155 C153
R832 R830 R836 R831 R829 R833 R819 R820 R839 R838 R840 R841 R845 R846 R848 R849 R850 R851 R852 R853 R854 R855 R856 R857 R858 R859 R860 R861 R862 R863 R864 R865 R866 R867 R868 R869 R870 R871 R872 R873 R874 R875 R876 R877 R878 R879 R880 R881 R882 R883 R884 R885 R886 R887 R888 R889 R890 R891 R892 R893 R894 R895 R896 R897 R898 R899 R900 R901 R902 R903 R904 R905 R906 R907 R908 R909 R910 R911 R912 R913 R914 R915 R916 R917 R918 R919 R920 R921 R922 R923 R924 R925 R926 R927 R928 R929 R930 R931 R932 R933 R934 R935 R936 R937 R938 R939 R940 R941 R942 R943 R944 R945 R946 R947 R948 R949 R950 R951 R952 R953 R954 R955 R956 R957 R958 R959 R960 R961 R962 R963 R964 R965 R966 R967 R968 R969 R970 R971 R972 R973 R974 R975 R976 R977 R978 R979 R980 R981 R982 R983 R984 R985 R986 R987 R988 R989 R990 R991 R992 R993 R994 R995 R996 R997 R998 R999 R1000
Q236 Q231 Q235 Q208 Q209 Q210 Q207 Q206 Q205 Q204 Q203 Q202 Q201 Q200 Q199 Q198 Q197 Q196 Q195 Q194 Q193 Q192 Q191 Q190 Q189 Q188 Q187 Q186 Q185 Q184 Q183 Q182 Q181 Q180 Q179 Q178 Q177 Q176 Q175 Q174 Q173 Q172 Q171 Q170 Q169 Q168 Q167 Q166 Q165 Q164 Q163 Q162 Q161 Q160 Q159 Q158 Q157 Q156 Q155 Q154 Q153 Q152 Q151 Q150 Q149 Q148 Q147 Q146 Q145 Q144 Q143 Q142 Q141 Q140 Q139 Q138 Q137 Q136 Q135 Q134 Q133 Q132 Q131 Q130 Q129 Q128 Q127 Q126 Q125 Q124 Q123 Q122 Q121 Q120 Q119 Q118 Q117 Q116 Q115 Q114 Q113 Q112 Q111 Q110 Q109 Q108 Q107 Q106 Q105 Q104 Q103 Q102 Q101 Q100 Q99 Q98 Q97 Q96 Q95 Q94 Q93 Q92 Q91 Q90 Q89 Q88 Q87 Q86 Q85 Q84 Q83 Q82 Q81 Q80 Q79 Q78 Q77 Q76 Q75 Q74 Q73 Q72 Q71 Q70 Q69 Q68 Q67 Q66 Q65 Q64 Q63 Q62 Q61 Q60 Q59 Q58 Q57 Q56 Q55 Q54 Q53 Q52 Q51 Q50 Q49 Q48 Q47 Q46 Q45 Q44 Q43 Q42 Q41 Q40 Q39 Q38 Q37 Q36 Q35 Q34 Q33 Q32 Q31 Q30 Q29 Q28 Q27 Q26 Q25 Q24 Q23 Q22 Q21 Q20 Q19 Q18 Q17 Q16 Q15 Q14 Q13 Q12 Q11 Q10 Q9 Q8 Q7 Q6 Q5 Q4 Q3 Q2 Q1
J220 J222 J227 J223 J229 J203 J224 J226 J221 J225 J230 J228 J231 J232 J233 J234 J235 J236 J237 J238 J239 J240 J241 J242 J243 J244 J245 J246 J247 J248 J249 J250 J251 J252 J253 J254 J255 J256 J257 J258 J259 J260 J261 J262 J263 J264 J265 J266 J267 J268 J269 J270 J271 J272 J273 J274 J275 J276 J277 J278 J279 J280 J281 J282 J283 J284 J285 J286 J287 J288 J289 J290 J291 J292 J293 J294 J295 J296 J297 J298 J299 J300 J301 J302 J303 J304 J305 J306 J307 J308 J309 J310 J311 J312 J313 J314 J315 J316 J317 J318 J319 J320 J321 J322 J323 J324 J325 J326 J327 J328 J329 J330 J331 J332 J333 J334 J335 J336 J337 J338 J339 J340 J341 J342 J343 J344 J345 J346 J347 J348 J349 J350 J351 J352 J353 J354 J355 J356 J357 J358 J359 J360 J361 J362 J363 J364 J365 J366 J367 J368 J369 J370 J371 J372 J373 J374 J375 J376 J377 J378 J379 J380 J381 J382 J383 J384 J385 J386 J387 J388 J389 J390 J391 J392 J393 J394 J395 J396 J397 J398 J399 J400 J401 J402 J403 J404 J405 J406 J407 J408 J409 J410 J411 J412 J413 J414 J415 J416 J417 J418 J419 J420 J421 J422 J423 J424 J425 J426 J427 J428 J429 J430 J431 J432 J433 J434 J435 J436 J437 J438 J439 J440 J441 J442 J443 J444 J445 J446 J447 J448 J449 J450 J451 J452 J453 J454 J455 J456 J457 J458 J459 J460 J461 J462 J463 J464 J465 J466 J467 J468 J469 J470 J471 J472 J473 J474 J475 J476 J477 J478 J479 J480 J481 J482 J483 J484 J485 J486 J487 J488 J489 J490 J491 J492 J493 J494 J495 J496 J497 J498 J499 J500 J501 J502 J503 J504 J505 J506 J507 J508 J509 J510 J511 J512 J513 J514 J515 J516 J517 J518 J519 J520 J521 J522 J523 J524 J525 J526 J527 J528 J529 J530 J531 J532 J533 J534 J535 J536 J537 J538 J539 J540 J541 J542 J543 J544 J545 J546 J547 J548 J549 J550 J551 J552 J553 J554 J555 J556 J557 J558 J559 J560 J561 J562 J563 J564 J565 J566 J567 J568 J569 J570 J571 J572 J573 J574 J575 J576 J577 J578 J579 J580 J581 J582 J583 J584 J585 J586 J587 J588 J589 J590 J591 J592 J593 J594 J595 J596 J597 J598 J599 J600 J601 J602 J603 J604 J605 J606 J607 J608 J609 J610 J611 J612 J613 J614 J615 J616 J617 J618 J619 J620 J621 J622 J623 J624 J625 J626 J627 J628 J629 J630 J631 J632 J633 J634 J635 J636 J637 J638 J639 J640 J641 J642 J643 J644 J645 J646 J647 J648 J649 J650 J651 J652 J653 J654 J655 J656 J657 J658 J659 J660 J661 J662 J663 J664 J665 J666 J667 J668 J669 J670 J671 J672 J673 J674 J675 J676 J677 J678 J679 J680 J681 J682 J683 J684 J685 J686 J687 J688 J689 J690 J691 J692 J693 J694 J695 J696 J697 J698 J699 J700 J701 J702 J703 J704 J705 J706 J707 J708 J709 J710 J711 J712 J713 J714 J715 J716 J717 J718 J719 J720 J721 J722 J723 J724 J725 J726 J727 J728 J729 J730 J731 J732 J733 J734 J735 J736 J737 J738 J739 J740 J741 J742 J743 J744 J745 J746 J747 J748 J749 J750 J751 J752 J753 J754 J755 J756 J757 J758 J759 J760 J761 J762 J763 J764 J765 J766 J767 J768 J769 J770 J771 J772 J773 J774 J775 J776 J777 J778 J779 J780 J781 J782 J783 J784 J785 J786 J787 J788 J789 J790 J791 J792 J793 J794 J795 J796 J797 J798 J799 J800 J801 J802 J803 J804 J805 J806 J807 J808 J809 J810 J811 J812 J813 J814 J815 J816 J817 J818 J819 J820 J821 J822 J823 J824 J825 J826 J827 J828 J829 J830 J831 J832 J833 J834 J835 J836 J837 J838 J839 J840 J841 J842 J843 J844 J845 J846 J847 J848 J849 J850 J851 J852 J853 J854 J855 J856 J857 J858 J859 J860 J861 J862 J863 J864 J865 J866 J867 J868 J869 J870 J871 J872 J873 J874 J875 J876 J877 J878 J879 J880 J881 J882 J883 J884 J885 J886 J887 J888 J889 J890 J891 J892 J893 J894 J895 J896 J897 J898 J899 J900 J901 J902 J903 J904 J905 J906 J907 J908 J909 J910 J911 J912 J913 J914 J915 J916 J917 J918 J919 J920 J921 J922 J923 J924 J925 J926 J927 J928 J929 J930 J931 J932 J933 J934 J935 J936 J937 J938 J939 J940 J941 J942 J943 J944 J945 J946 J947 J948 J949 J950 J951 J952 J953 J954 J955 J956 J957 J958 J959 J960 J961 J962 J963 J964 J965 J966 J967 J968 J969 J970 J971 J972 J973 J974 J975 J976 J977 J978 J979 J980 J981 J982 J983 J984 J985 J986 J987 J988 J989 J990 J991 J992 J993 J994 J995 J996 J997 J998 J999 J1000

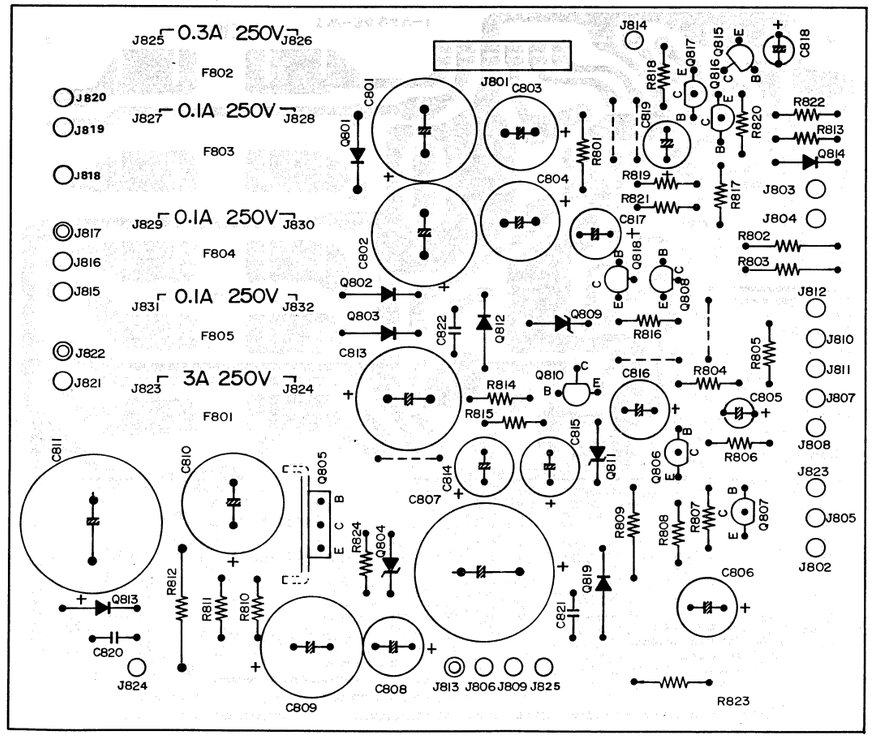
7.4 MPX STEREO DECODER BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P300



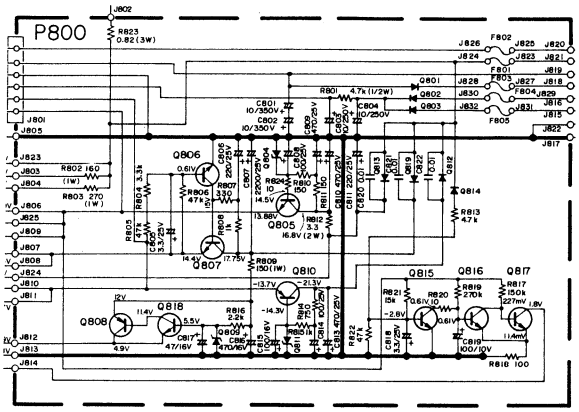


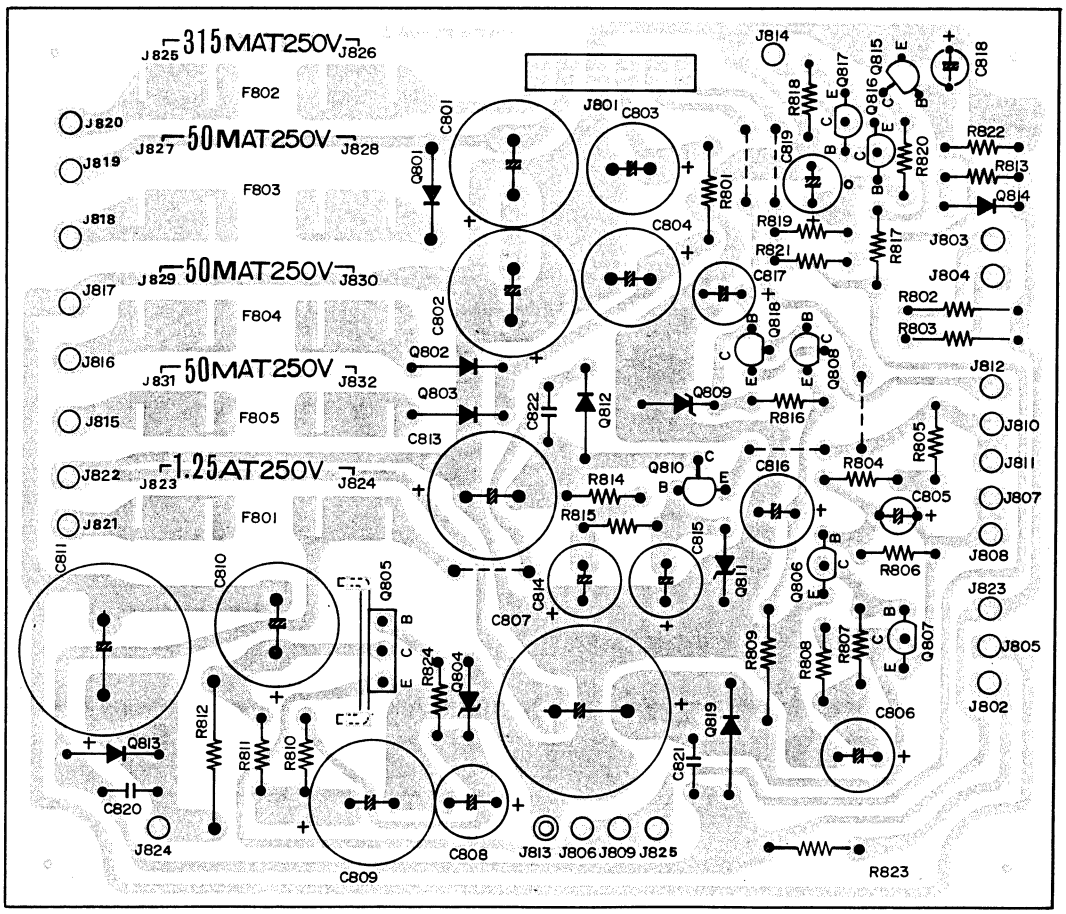
7.5 POWER SUPPLY BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P800 - U.S.A. & CANADA



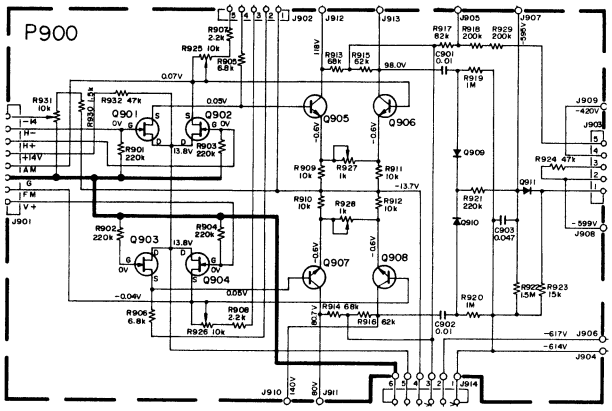


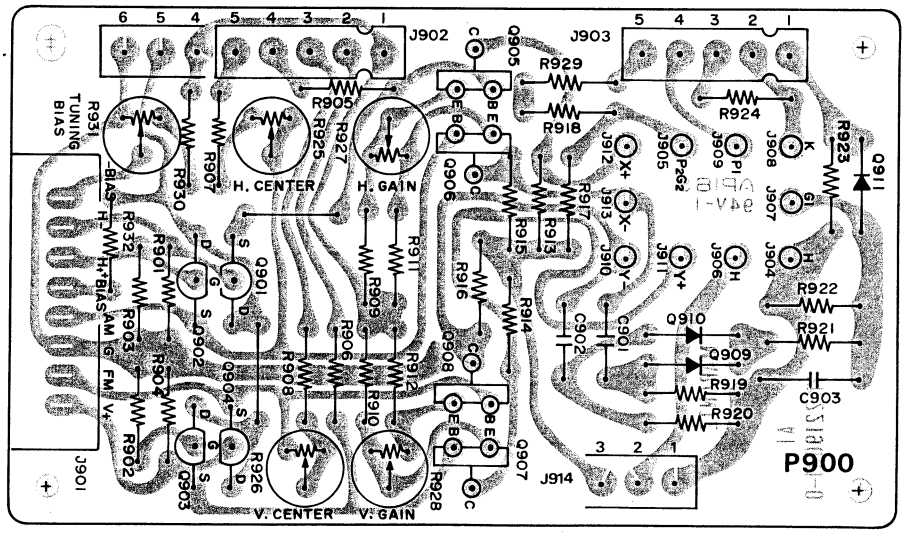
7.6 POWER SUPPLY BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P800 - EUROPE



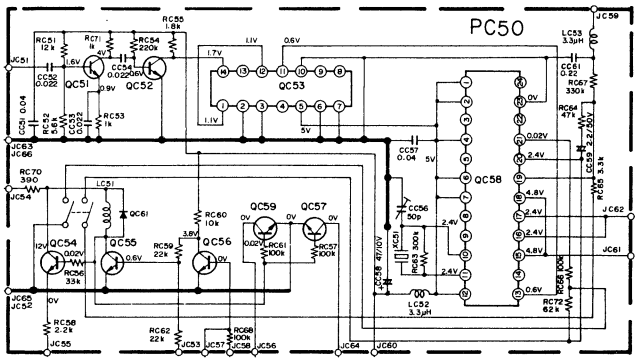


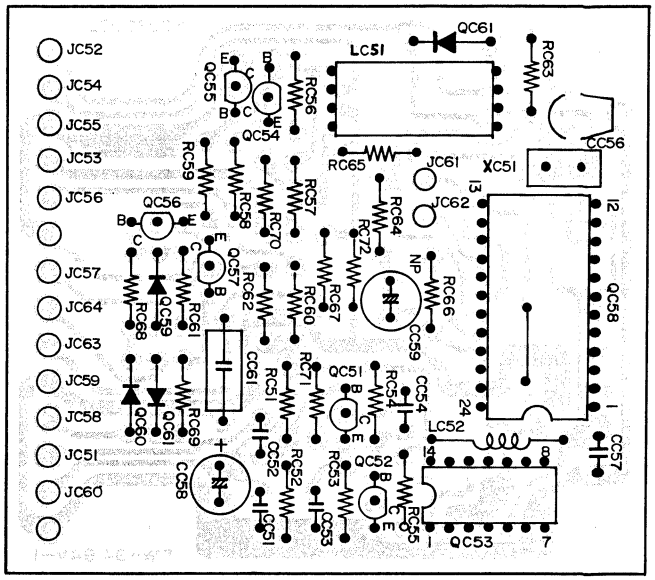
7.7 SCOPE AMP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P900



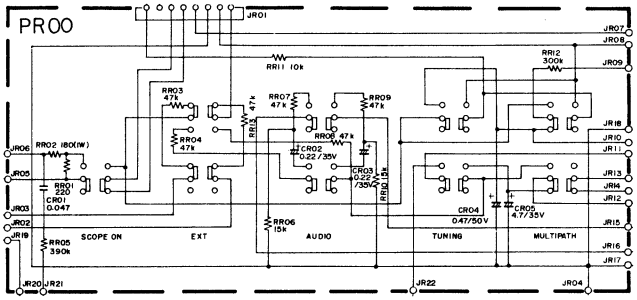


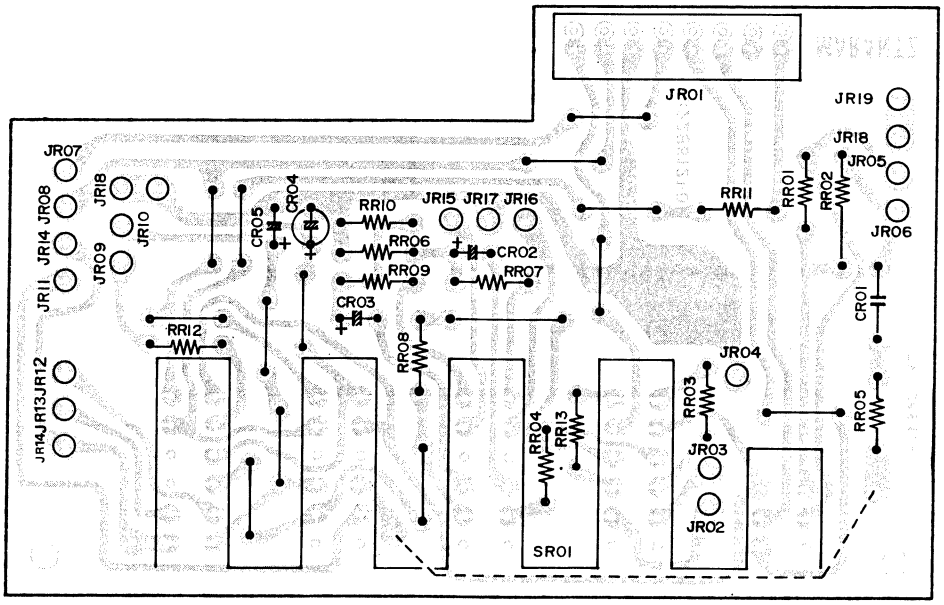
7.8 QUARTZ LOCK BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PC50



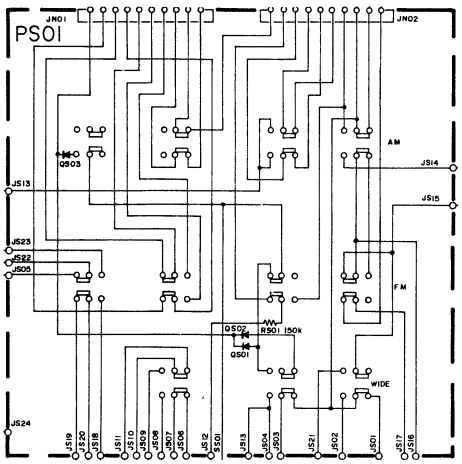


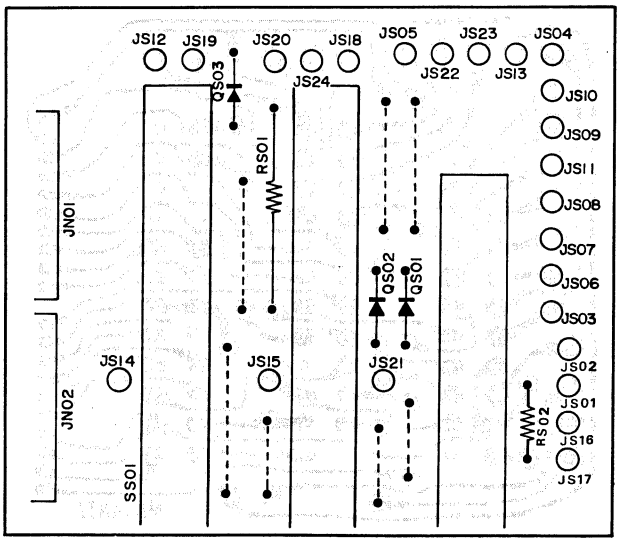
7.9 SCOPE DISPLAY SWITCHES BOARD SCHEMATIC DIAGRAM AND COMPONTNT LOCATIONS - PR00



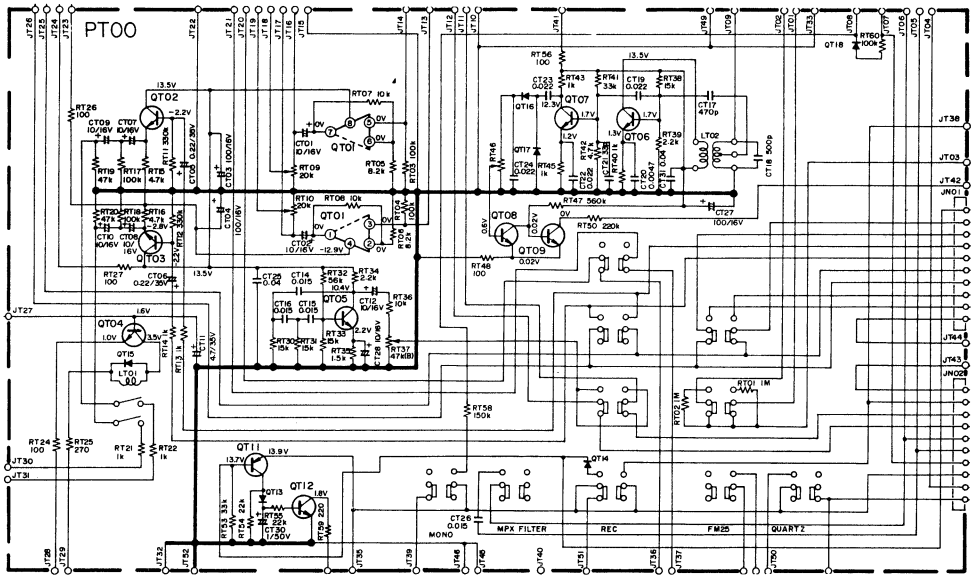


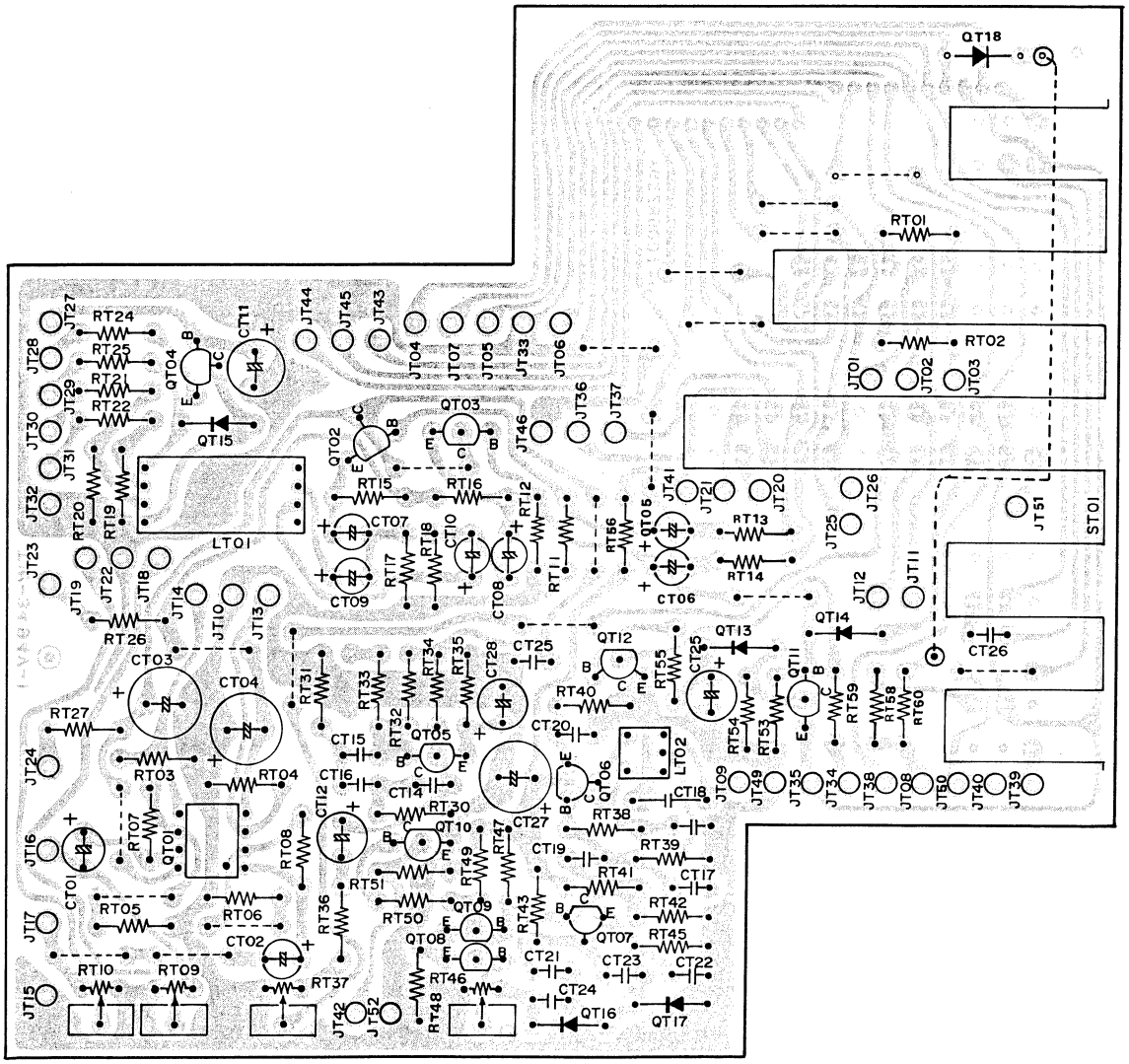
7.10 AM/FM/IF WIDE SWITCHES BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PS01



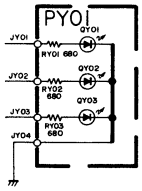


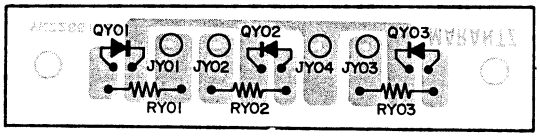
7.11 BUFFER AMP & MODE SWITCHES BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PT00



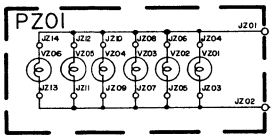


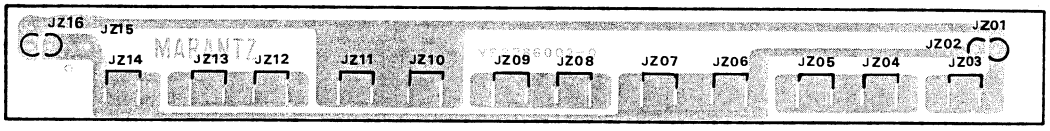
7.12 FUNCTION INDICATOR BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PY01



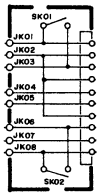


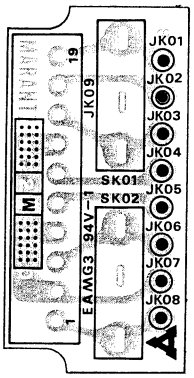
7.13 DIAL LAMP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PZ01





7.14 DOLBY SOCKET BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PK01 - U.S.A. & CANADA





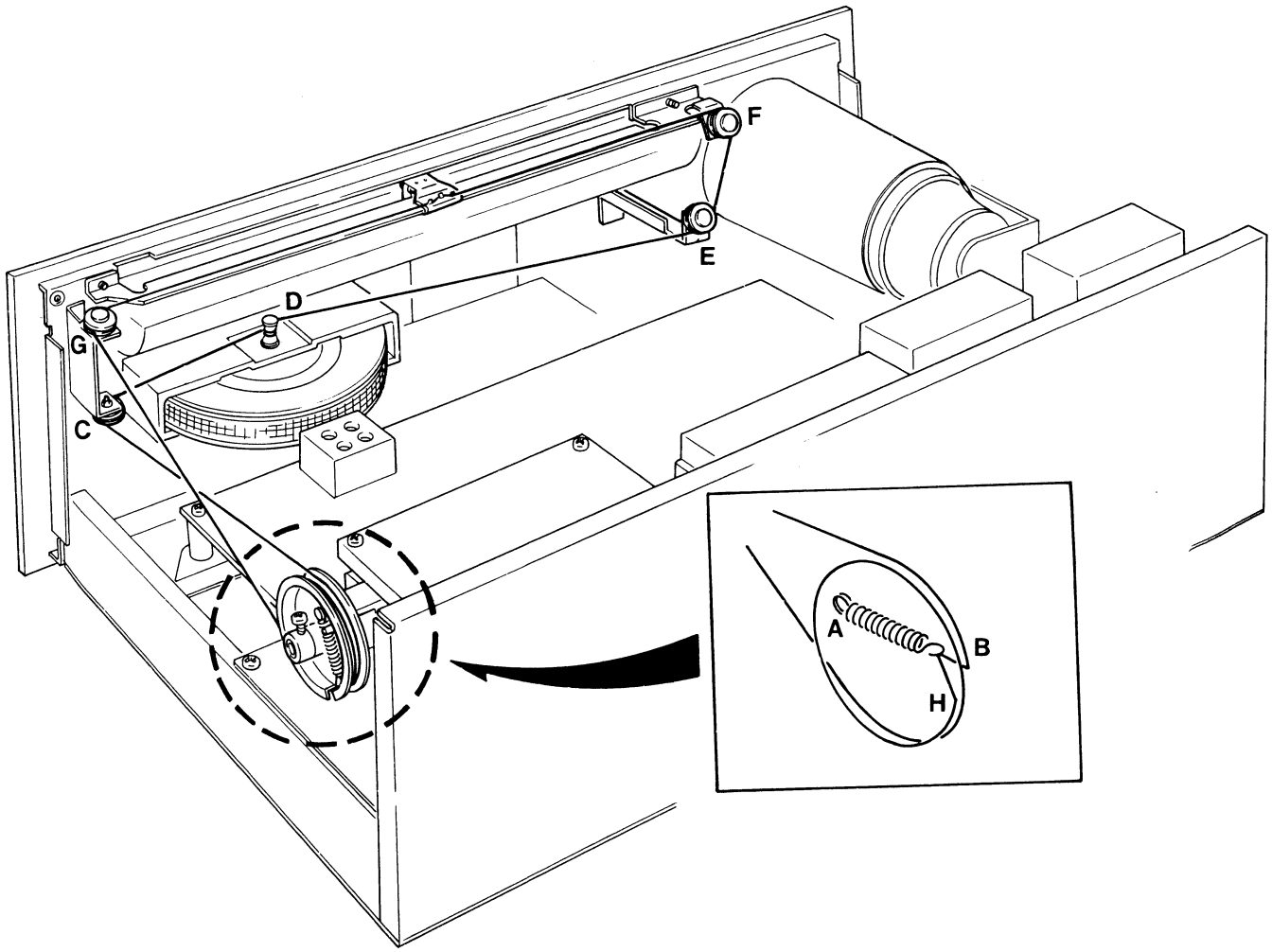
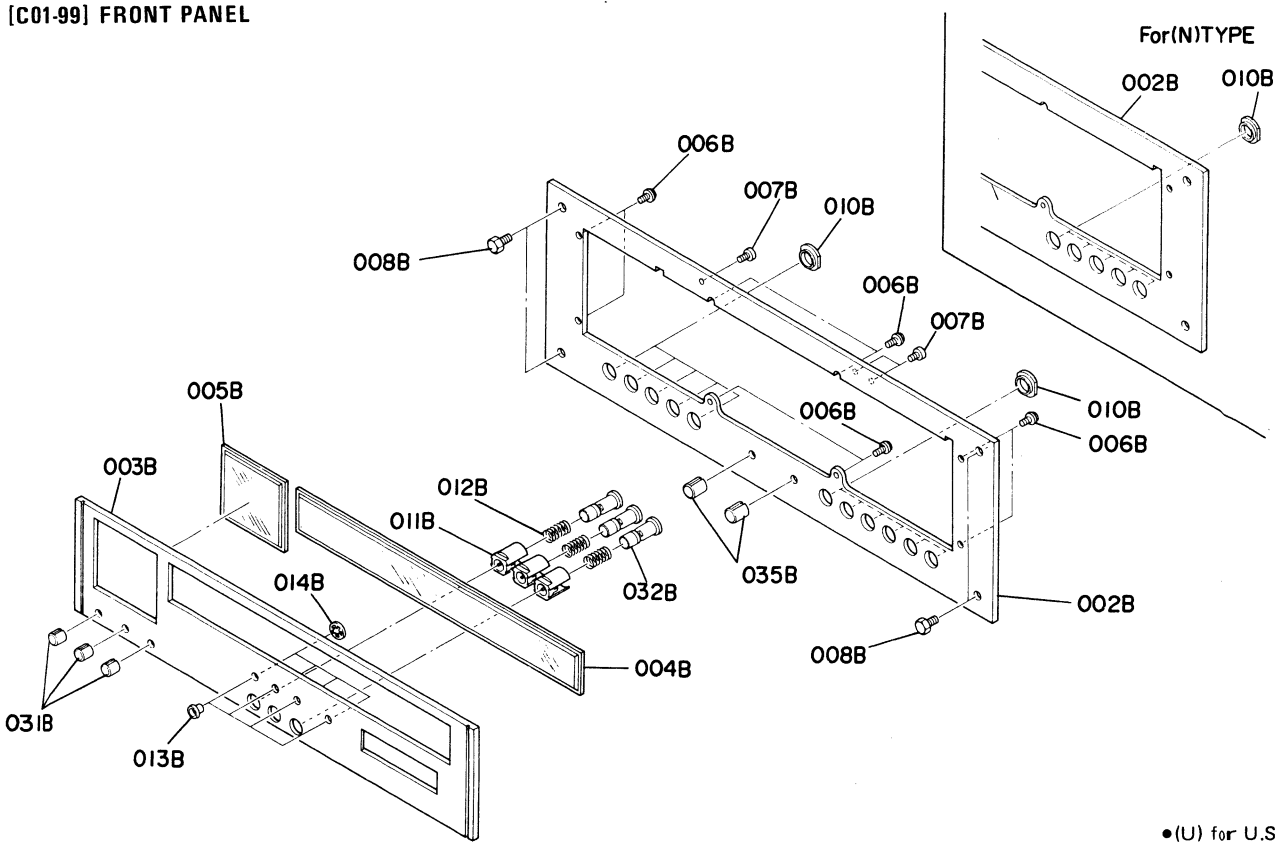


Figure 2. Dial Stringing

marantz

8. EXPLODED VIEWS AND PARTS LIST

8.1 [C01-99] FRONT PANEL

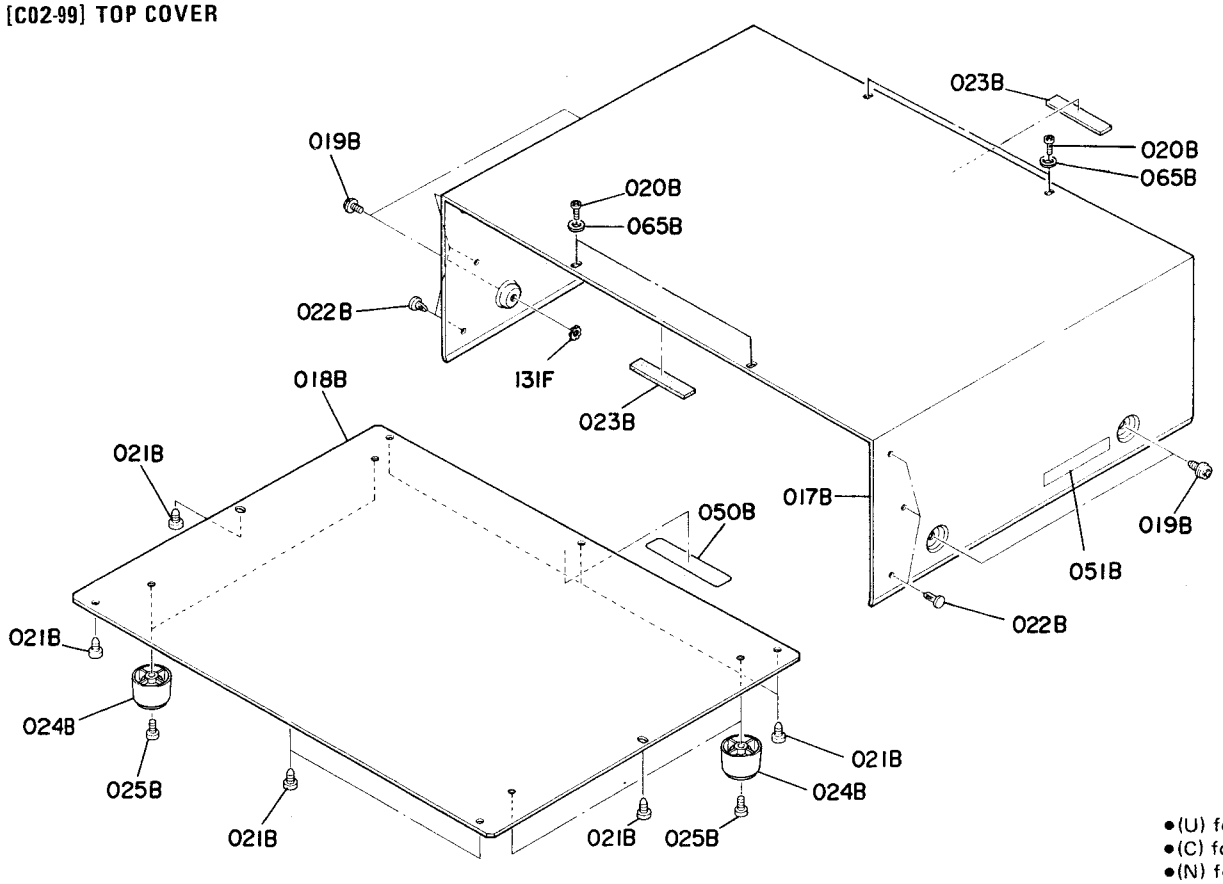


- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
A	1	1		2286063400	Front Panel Assembly
A1			1	2286063410	Front Panel Assembly
002B	1	1		2286063012	Escutcheon, Main
002B			1	2286063030	Escutcheon, Main
003B	1	1	1	2286063020	Escutcheon, Sub
004B	1	1	1	2286158020	Window, Dial
005B	1	1	1	2286158010	Window, Scope
006B	8	8	8	51480306A9	F. Washer Screw F3x 6
007B	3	3	3	51570305B0	P. TAPT. Screw P3 x 5
010B	11	11	10	2978259012	Bushing
011B	3	3	3	2279259013	Bushing
012B	3	3	3	2979115012	Spring
013B	4	4	4	2979259022	Bushing
014B	4	4	4	64020600Q0	RG Ring, CS Type

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
008B	4	4	4	52017069J2	H. Head Bolt
031B	3	3	3	2286154012	Knob, Scope VR.
032B	3	3	3	2979154022	Knob, AM/FM
035B	2	2	2	2978154013	Knob, Quartz VR.

8.2 [C02-99] TOP COVER

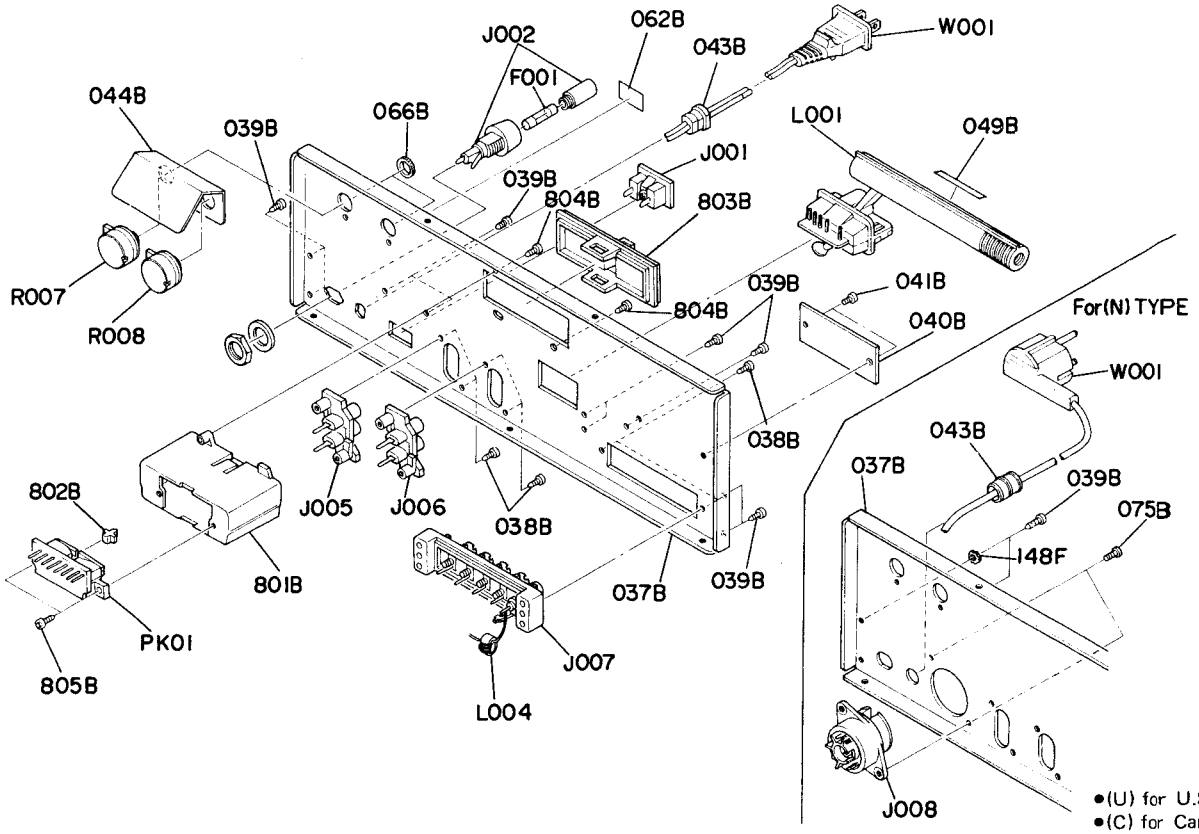


- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
017B	1	1	1	2216257112	Lid, Top Cover
018B	1	1	1	2216257022	Lid, Bottom Cover
019B	4	4	4	51480406S9	F. Washer Screw F4 x 6
020B	4	4	4	51280306U0	B.H. Tapped Screw B3 x 6
021B	8	8	8	51280408U0	B.H. Tapped Screw B4 x 8
022B	6	6	6	2991259010	Bushing
023B	2	2	2	2965118010	Spacer
024B	4	4	4	2932057010	Leg
025B	4	4	4	51570410S0	P. TAPT. Screw P4 x 10

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
050B	1		1	2578861010	Label
050B		1		2911861112	Label
051B	1		1	2932861012	Label
051B		1		2911861143	Label
065B	4	4	4	59030805P1	Washer
131F			1	54050400R0	T.L. Washer OR

8.3 [C03-99] REAR PANEL

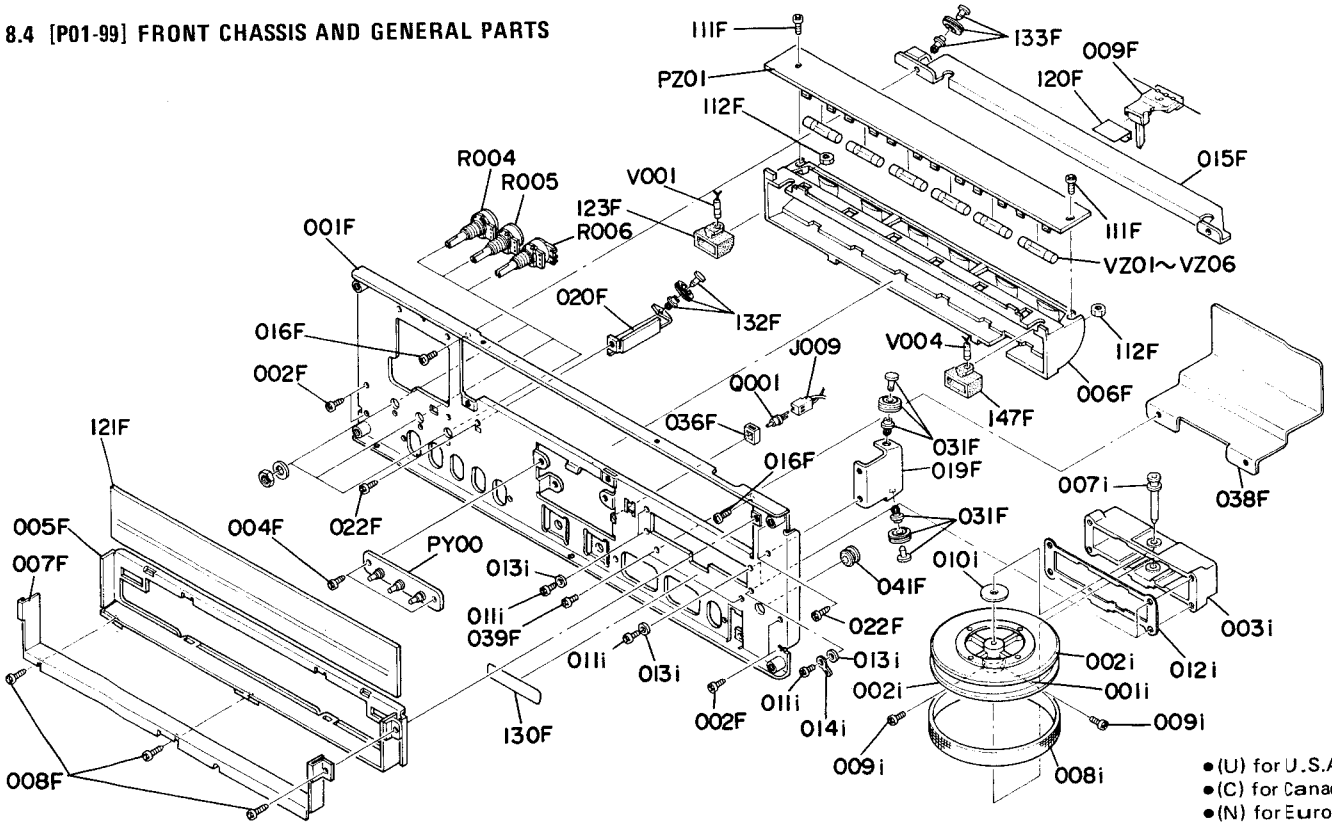


- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	QTY U	QTY C	QTY N	PART NO.	DESCRIPTION
037B	1	1		2286160210	Bracket, Rear Panel
037B			1	2286160223	Bracket, Rear Panel
038B	6	6	6	51280308U0	B.H. Tapped Screw B3 x 8
039B	9	9	9	51280308U0	B.H. Tapped Screw B3 x 8
040B	1			2286265010	Indicator
040B		1		2286265020	Indicator
040B			1	2286265050	Indicator
041B	2	2	2	51760306B0	OS Tapped Screw 3 x 6
043B	1	1		1455259030	Bushing
043B			1	2286259110	Bushing
044B	1	1	1	2286120020	Insulator
049B	1	1	1	2506265062	Indicator
062B		1		2911861280	Label
066B	2	2	2	53228059E0	S.C. Nut
075B			2	51100308S9	B.H.M. Screw B3 x 8
801B	1	1		2218271052	Holder
802B	1	1		2218258010	Hook
803B	1	1		2218257030	Lid
804B	2	2		51280308U0	B.H. Tapped Screw B3 x 8
805B	2	2		51282608A0	B.H. Tapped Screw B2.6 x 8
148F			1	54050300R0	T.L. Washer OR

REF. DESIG.	QTY U	QTY C	QTY N	PART NO.	DESCRIPTION
J001	1	1		YJ04000560	Jack, AC Outlet
J002	1	1		YJ08000230	Jack, Fuse Holder
J002			1	YJ08000220	Jack, Fuse Holder
J005	1	1	1	YT02020140	Terminal
J006	1	1	1	YT02020140	Terminal
J007	1	1		BY04050010	Terminal
J007			1	BY04050020	Terminal
J008			1	BY03110010	Plug, Voltage Selector
F001	1	1		FS10150050	Fuse 250V 1.5A
F001			1	FS10063800	Fuse 250V 630mAT
L001	1	1	1	LF11200620	Ant. Coil, AM Bar Ant.
L004	1	1	1	LB30075260	Balun Coil
R007	1	1	1	RA05030180	Trimming Resistor 50KΩ
R008	1	1	1	RK02040060	Variable Resistor 200KΩ
W001	1	1		YC02000140	AC Power Cord
W001			1	YC01900030	AC Power Cord
PK01	1	1		YA22180310	P.W. Board, Dolby Socket
	1	1		ZZ22180310	P.W. Board Assembly

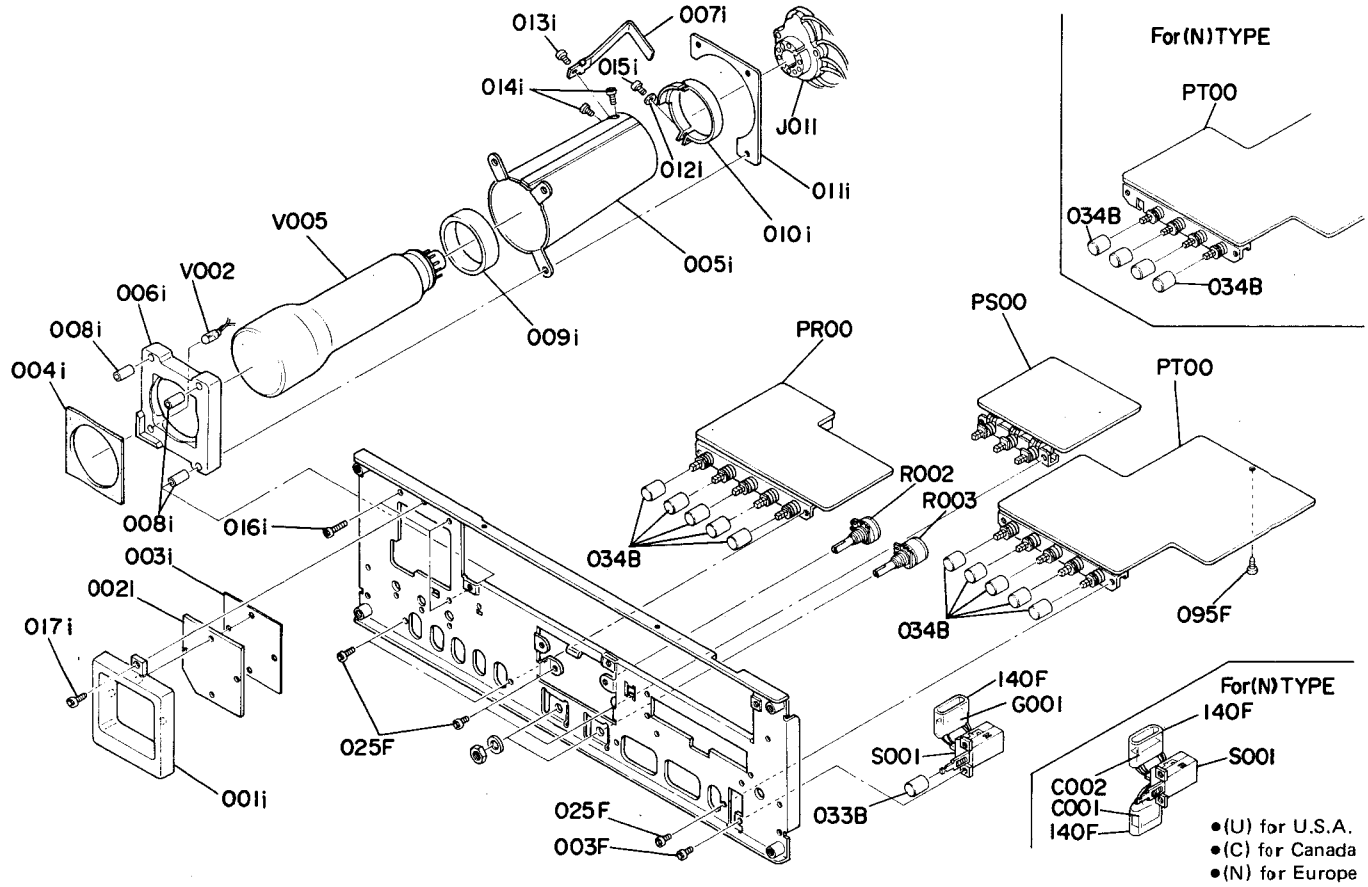
8.4 [P01-99] FRONT CHASSIS AND GENERAL PARTS



REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
B	1	1	1	2286273400	Flywheel Assembly
001i	1	1	1	2219273012	Flywheel
002i	2	2	2	2219063030	Escutcheon
008i	1	1	1	2286353010	Ring
009i	2	2	2	51690306Q9	Socket Screw, HP 3 x 6
003i	1	1	1	2219104502	Retainer
007i	1	1	1	2219112012	Shaft
010i	1	1	1	59031405G9	Washer
011i	4	4	4	51280308B0	B.H. Tapped Screw B3 x 8
012i	1	1	1	2286120012	Insulator
013i	4	4	4	2286259010	Bushing
014i	1	1	1	62030049W0	Lug
001F	1	1	1	2286160012	Bracket
002F	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
004F	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
005F	1	1	1	2218271013	Holder
006F	1	1	1	2218274013	Reflector
007F	1	1	1	2219053022	Cover
008F	3	3	3	51280306B0	B.H. Tapped Screw B3 x 6
009F	1	1	1	2286103500	Pointer, K
015F	1	1	1	2286051010	Guide
016F	2	2	2	51100306A9	B.H.M. Screw B3 x 6
019F	1	1	1	2286271010	Holder
020F	1	1	1	2286271020	Holder
022F	3	3	3	51100306A9	B.H.M. Screw B3 x 6
031F	2	2	2	2286262500	Pulley
036F	1	1	1	2978259060	Bushing

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
038F	1	1	1	2286109050	Shield
039F	2	2	2	51100306A9	B.H.M. Screw B3 x 6
041F	1	1	1	4551259010	Bushing
111F	2	2	2	51100308A9	B.H.M. Screw B3 x 8
112F	2	2	2	53110303E9	Hexagon Nut
120F	1	1	1	3918104010	Retainer
121F	1	1		2286302010	Dial
121F			1	2286302020	Dial
123F	1	1	1	2218274033	Reflector, Stereo
130F	1	1	1	2991861010	Label
132F	1	1	1	2286262500	Pulley
133F	1	1	1	2286262500	Pulley
147F	1	1		2218274033	Reflector, Dolby
J009	1	1	1	YJ05000250	Jack, LED Socket
Q001	1	1	1	HI10004030	L.E.D.
R004	1	1	1	RB01030240	Variable Resistor 10KΩ
R005	1	1	1	RB01030240	Variable Resistor 10KΩ
R006	1	1	1	RM02540440	Variable Resistor 250KΩ
V001	1	1	1	IN10080340	Lamp, Stereo
V004	1	1	1	IN10080340	Lamp, Dolby
PY00	1	1	1	YK22861220	P.W. Board, L.E.D.
	1	1	1	ZZ22861220	P.W. Board Assembly
PZ01	1	1	1	YF22860020	P.W. Board, Dial Illuminator
	1	1	1	ZZ22861020	P.W. Board Assembly
VZ01 ~ VZ06	6	6	6	IN10080070	Lamp 8V 0.2A

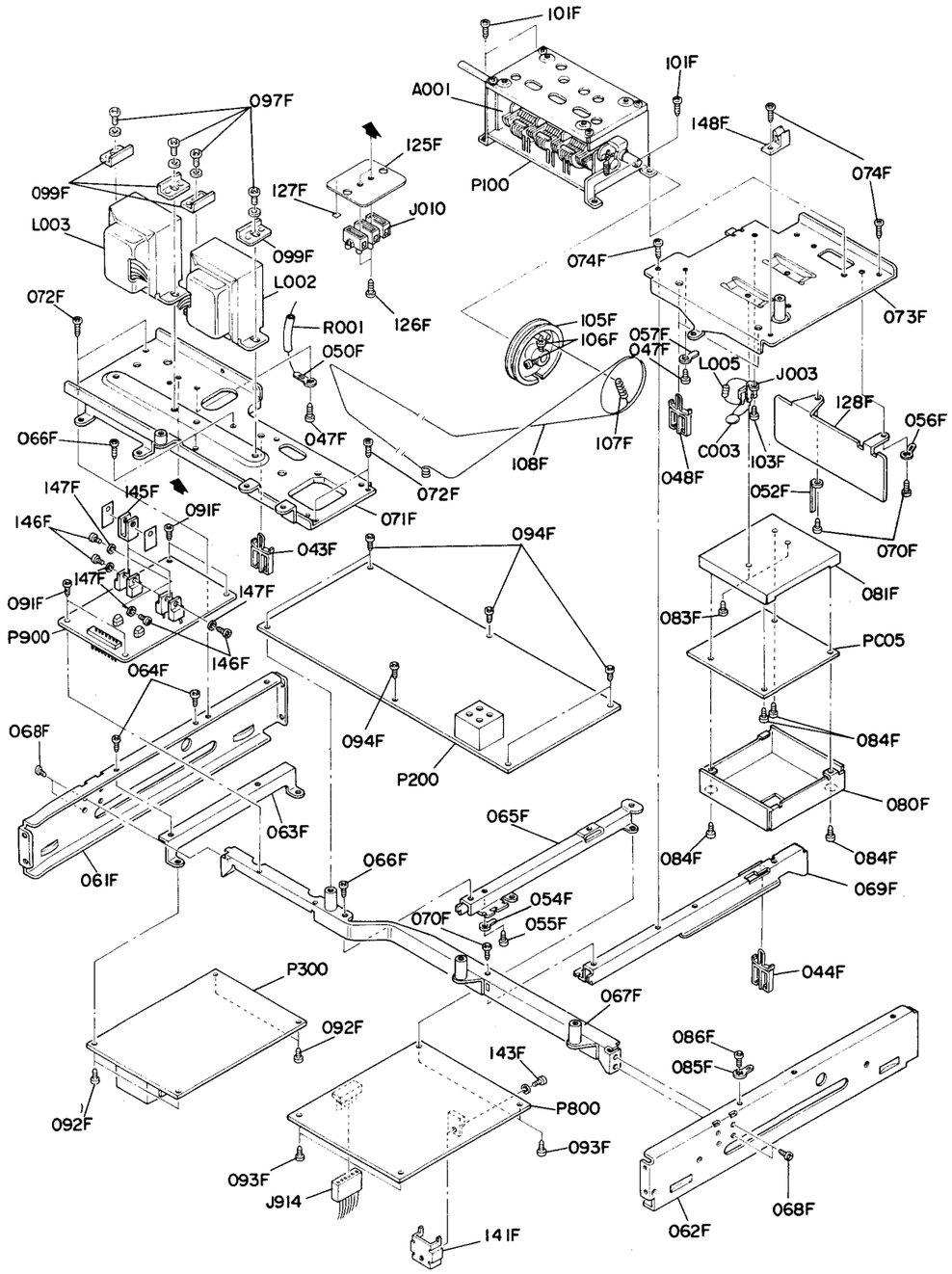
8.5 [P02-99] SCOPE DIAL ASSEMBLY AND P.W. BOARDS



REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
033B	1	1	1	2963154022	Knob
034B	10	10	9	2970154032	Knob
003F	2	2	2	51100306A9	B.H.M. Screw B3 x 6
025F	6	6	6	51100306A9	B.H.M. Screw B3 x 6
095F	1	1	1	51280306B0	B.H. Tapped Screw B3 x 6
140F	1			2219120010	Insulator
140F		1		2285120010	Insulator
140F			2	3926120010	Insulator
C001			1	DF17223800	Film Cap. 0.022μF ±20% 1000V
C002			1	DF17223800	Film Cap. 0.022μF ±20% 1000V
G001	1			BF10400030	Cap. Comp. Spark Killer
G001		1		DK18103520	Ceramic Cap. Spark Killer
R002	1	1	1	RM02030060	Variable Resistor, Output
R003	1	1	1	RK12030100	Variable Resistor, Muting
S001	1	1		SP01010210	Push Switch, Power
S001			1	SP02010300	Push Switch, Power
PR00	1	1	1	YK22861210	P.W. Board, Scope Switch
	1	1	1	ZZ22861210	P.W. Board Assembly
PS00	1	1	1	YK22860410	P.W. Board, AM/FM/Wide Switch
	1	1	1	ZZ22860410	P.W. Board, Assembly
PT00	1	1	1	YG22860040	P.W. Board, Mode Switch
	1	1		ZZ22860040	P.W. Board Assembly
			1	ZZ22868040	P.W. Board Assembly

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
D	1	1	1	2286302400	Scope Dial Assembly
002i	1	1	1	2286302030	Dial
003i	1	1	1	2286303010	Mask
004i	1	1	1	2286053030	Cover
001i	1	1	1	2286401010	Frame
005i	1	1	1	2219109012	Shield
006i	1	1	1	2219357012	Rod., Scope Pade
007i	1	1	1	2286005012	Clamper
008i	3	3	3	2219055020	Collar
009i	1	1	1	2904056022	Buffer
010i	1	1	1	2904005030	Clamper
011i	1	1	1	2207005010	Clamper
012i	1	1	1	54020301S0	Flat Washer, P.
013i	1	1	1	51100308S9	B.H.M. Screw B3 x 8
014i	2	2	2	51100304S9	B.H.M. Screw B3 x 4
015i	1	1	1	51100305S9	B.H.M. Screw B3 x 5
016i	3	3	3	51100316S9	B.H.M. Screw B3 x 16
017i	1	1	1	51280306B0	B.H. Tapped Screw B3 x 6
J011	1	1	1	YJ05000182	Jack, CRT Socket
V002	1	1	1	IN10080340	Lamp, Scale
V005	1	1	1	VB00235012	Picture Tube

8.6 [P03-99] MAIN CHASSIS AND P.W. BOARDS

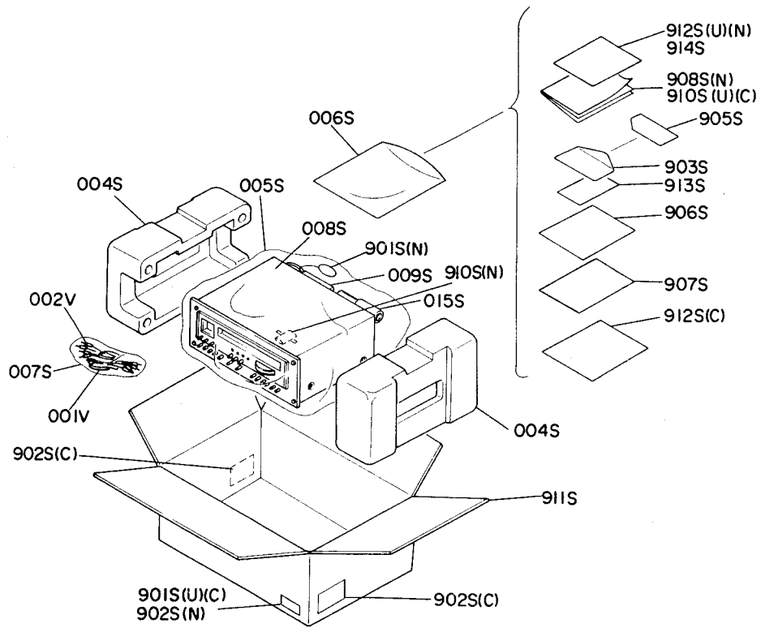


- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
C	1	1	1	2285159400	Drum Assembly
105F	1	1	1	2219159010	Drum
106F	2	2	2	51064019A0	P.H.M. Screw
107F	1	1	1	71101689L0	Spring
043F	1	1	1	2886005030	Clamper
044F	1	1	1	2886005030	Clamper
047F	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
048F	2	2	2	2886005030	Clamper
050F	1	1	1	62030049W0	Lug
052F	1	1	1	1382005030	Clamper
054F	1	1	1	62040029W0	Lug
055F	1	1	1	51280306B0	B.H. Tapped Screw B3 x 6
056F	1	1	1	6230049W0	Lug
057F	1	1	1	6230049W0	Lug
061F	1	1	1	2216105023	Chassis, (L)
062F	1	1	1	2216105030	Chassis, (R)
063F	1	1	1	2286126020	Stay
064F	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
065F	1	1	1	2286126040	Stay
066F	3	3	3	51280306B0	B.H. Tapped Screw B3 x 6
067F	1	1	1	2286126012	Stay
068F	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
069F	1	1	1	2286126030	Stay
070F	3	3	3	51280306B0	B.H. Tapped Screw B3 x 6
071F	1	1	1	2286105012	Chassis, Main
072F	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
073F	1	1	1	2286105020	Chassis Sub
074F	3	3	3	51280306B0	B.H. Tapped Screw B3 x 6
080F	1	1	1	2286053110	Cover
081F	1	1	1	2286053120	Cover
083F	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
084F	4	4	4	51100306A9	B.H.M. Screw B3 x 6
085F	1	1	1	62030049W0	Lug
086F	1	1	1	5128O306B0	B.H. Tapped Screw B3 x 6
091F	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
092F	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
093F	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
094F	6	6	6	51280306B0	B.H. Tapped Screw B3 x 6
097F	4	4	4	51470408A9	L. Washer Screw L4 x 8
099F	4	4	4	2896104010	Retainer
101F	4	4	4	51280305B0	B.H. Tapped Screw B3 x 5
103F	1	1	1	51280305B0	B.H. Tapped Screw B3 x 5
108F	1	1	1	72071605A0	String (150)
125F			1	3953120030	Insulator

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
126F			2	51280314B0	B.H. Tapped Screw B3 x 14
127F			1	2882861020	Label
128F	1	1	1	2286109080	Shield
141F	1	1	1	2963267020	Heatsink
143F	1	1	1	51280306U0	B.H. Tapped Screw B3 x 6
145F	2	2	2	2219267040	Heatsink
146F	4	4	4	5002030589	B.H.M. Screw B3 x 5
147F	4	4	4	54040302A0	Spring Washer
148F	1	1	1	2887005012	Clamper
C003	1	1	1	DK18403020	Ceramic Cap. 0.04μF +100% −0
J003	1	1	1	YL01030210	Terminal
J010			1	YL09030010	Terminal
J914	1	1	1	YJ06001310	Jack (6P)
L002	1	1		TS15713010	Power Transformer
L002			1	TS15713020	Power Transformer
L003	1	1		TS15713040	Power Transformer
L003			1	TS15713050	Power Transformer
L005	1	1	1	LC13320020	Choke Coil 3.3μH
R001	1	1		RC10225120	Resistor 2.2MΩ ±10% ½W
P100	1	1	1	YF22860010	P.W. Board, FM Front End
	1	1	1	ZZ22860010	P.W. Board Assembly
A001	1	1	1	AV11202010	V.H.F. Tuner, FM Front End
P200	1	1	1	YG22860010	P.W. Board, AM Tuner/FM IF
	1	1	1	ZZ22860010	P.W. Board Assembly
P300	1	1	1	YG22860020	P.W. Board, MPX
	1	1		ZZ22860020	P.W. Board Assembly
			1	ZZ22868020	P.W. Board Assembly
P800	1	1		YG22860030	P.W. Board, Power Supply
	1	1		ZZ22860030	P.W. Board Assembly
P800			1	YG22860050	P.W. Board, Power Supply
			1	ZZ22868050	P.W. Board Assembly
P900	1	1	1	YK22190310	P.W. Board, Scope Amp
	1	1	1	ZZ22860310	P.W. Board Assembly
PC50	1	1	1	YK22860220	P.W. Board, PLL, OSC
	1	1	1	ZZ22860220	P.W. Board Assembly

8.7 [H01-99] PACKING MATERIALS



- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
004S	2	2	2	2965809012	Cushion
005S	1	1	1	9014335330	Polyethy Bag
006S	1	1	1	9013025010	Polyethy Bag
007S	1	1	1	9011325010	Polyethy Bag
008S	1	1	1	2918107170	Sheet
009S	1	1	1	2864804010	Sleeve
015S	1	1	1	2819056010	Buffer
901S	2			9526019010	Serial No Card
901S		2		9526019020	Serial No Card
901S			1	9560000043	Hang Tag
902S		1		9510901020	Label
902S			2	9526019060	Serial No Card
903S		1		2918813012	Envelope
903S			1	2818813010	Envelope
905S		1	1	9630000180	Guarantee Card
906S		1		9650000053	S. Station Card
907S	1			2818854024	Guarantee Card
907S		1		2818854042	Guarantee Card
908S			1	2286851310	Instructions
910S	1			2286851010	Instructions

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
910S		1		2286851310	Instructions
910S			1	2731821010	Silicagel
911S	1			2286801010	Packing Case
911S		1		2286801150	Packing Case
911S			1	2286801020	Packing Case
912S	1			2286851020	Instructions
912S		1		2886851100	Instructions
912S			1	2886851030	Instructions
913S	1			2225813010	Envelope
914S		1		2286851050	Instructions
001V	1	1	1	ZA02000070	EXT. Antenna, FM
002V	1	1	1	ZD01500160	Connective Cord

marantz

8.8 ELECTRICAL PARTS LIST

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					P100-FM FRONT END CIRCUIT BOARD
P100	1	1	1	YF22860010	P.W. Board, FM Front End
	1	1	1	ZZ22860010	P.W. Board Assembly
					P100-CAPACITORS
C101	1	1	1	DD15150370	Ceramic 15pF ±5%
C102	1	1	1	DD15470030	Ceramic 47pF ±5%
C103	1	1	1	DD15101370	Ceramic 100pF ±5%
C104	1	1	1	DK18223320	Ceramic 0.022μF
C105	1	1	1	DK18223320	Ceramic 0.022μF
C106	1	1	1	DK18223320	Ceramic 0.022μF
C107	1	1	1	DD15180300	Ceramic 18pF ±5%
C108	1	1	1	DD15180300	Ceramic 18pF ±5%
C109	1	1	1	DK18223320	Ceramic 0.022μF
C110	1	1	1	DD15101370	Ceramic 100pF ±5%
C111	1	1	1	DK18223320	Ceramic 0.022μF +100% −0
C112	1	1	1	DK18223320	Ceramic 0.022μF
C113	1	1	1	DK18223320	Ceramic 0.022μF
C114	1	1	1	DD11100370	Ceramic 10pF ±0.5pF
C115	1	1	1	DD15150300	Ceramic 15pF ±5%
C116	1	1	1	DD10050370	Ceramic 5pF ±0.25pF
C117	1	1	1	DK16102300	Ceramic 1000pF ±10%
C118	1	1	1	DK16102300	Ceramic 1000pF ±10%
C119	1	1	1	DK18102300	Ceramic 1000pF +100% −0
C120	1	1	1	DD15470030	Ceramic 47pF ±5%
C121	1	1	1	DD11100300	Ceramic 10pF ±0.5pF
C122	1	1	1	DD15120310	Ceramic 12pF ±5%
C123	1	1	1	DD10010370	Ceramic 1pF ±0.25pF
C124	1	1	1	DD15150310	Ceramic 15pF ±5%
C125	1	1	1	DD10030300	Ceramic 3pF ±0.25pF
C126	1	1	1	DK17102370	Ceramic 1000pF ±20%
C127	1	1	1	DK17102370	Ceramic 1000pF ±20%
A001	1	1	1	AV11202010	Front End
					P100-RESISTORS (All Resistors are ±5% and ¼W)
R101	1	1	1	GD05473140	47KΩ
R102	1	1	1	GD05104140	100KΩ
R103	1	1	1	GD05105140	1MΩ
R104	1	1	1	GD05104140	100KΩ
R105	1	1	1	GD05101140	100Ω
R106	1	1	1	GD05101140	100Ω
R107	1	1	1	GD05182140	1.8KΩ
R108	1	1	1	GD05473140	47KΩ
R109	1	1	1	GD05102140	1KΩ
R110	1	1	1	GD05153140	15KΩ
R111	1	1	1	GD05101140	100Ω
R112	1	1	1	GD05101140	100Ω
R113	1	1	1	GD05473140	47KΩ
R114	1	1	1	GD05561140	560Ω
R115	1	1	1	GD05101140	100Ω
R116	1	1	1	GD05101140	100Ω
R117	1	1	1	GD05153140	15KΩ
R118	1	1	1	GD05101140	100Ω
R119	1	1	1	GD05122140	1.2KΩ
R120	1	1	1	GD05472140	4.7KΩ
R121	1	1	1	GD05103140	10KΩ
R122	1	1	1	GD05473140	47KΩ
R123	1	1	1	GD05473140	47KΩ

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					P100-SEMICONDUCTORS
Q101	1	1	1	HF400591A0	F.E.T. 3SK59
Q102	1	1	1	HF400591A0	F.E.T. 3SK59
Q103	1	1	1	HF400591A0	F.E.T. 3SK59
Q104	1	1	1	HT307101C0	Transistor 2SC710C
Q105	1	1	1	HD40012090	Varicap 1S2687
					P100-JACK
J101 ~ J105	5	5	5	YJ06001150	Jack
					P200-AM TUNER/FM IF/DET CIRCUIT BOARD
P200	1	1	1	YG22860010	P.W. Board, AM Tuner/FM IF/Det
	1	1	1	ZZ22860010	P.W. Board Assembly
					P200-CAPACITORS
CB01	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
CB02	1	1	1	DK18403320	Ceramic 0.04μF
CB03	1	1	1	EA10505090	Elect 1μF 50V
CB04	1	1	1	EA10701690	Elect 100μF 16V
CB05	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
CB06	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
CB07	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
CB08	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
CB09	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
C151	1	1	1	DF17103300	Film 0.01μF ±20%
C152	1	1	1	DF15391010	Film 390pF ±5%
C153	1	1	1	DF17403010	Film 0.04μF ±20%
C154	1	1	1	DF17102310	Film 0.001μF ±20%
C155	1	1	1	DF17103010	Film 0.01μF ±20%
C156	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
C157	1	1	1	DD11100370	Ceramic 10pF ±0.5pF
C158	1	1	1	DF17103300	Film 0.01μF ±20%
C159	1	1	1	EA10701690	Elect 100μF 16V
C160	1	1	1	DF17393300	Film 0.039μF ±20%
C161	1	1	1	EA33502590	Elect 3.3μF 25V
C162	1	1	1	DF17473300	Film 0.047μF ±20%
C163	1	1	1	EA47503590	Elect 4.7μF 35V
C164	1	1	1	DK17102010	Ceramic 0.001μF ±20%
C165	1	1	1	DF17103300	Film 0.01μF ±20%
C166	1	1	1	DK17103300	Ceramic 0.01μF ±20%
C167	1	1	1	EA10701690	Elect 100μF 16V
C168	1	1	1	EE10405040	Elect 0.1μF 50V
C169	1	1	1	DK16472300	Ceramic 0.0047μF ±10%
C201	1	1	1	DK18223310	Ceramic 0.022μF
C202	1	1	1	DK18223310	Ceramic 0.022μF
C203	1	1	1	DK18403320	Ceramic 0.04μF
C204	1	1	1	DK18403320	Ceramic 0.04μF
C205	1	1	1	DK18223310	Ceramic 0.022μF
C206	1	1	1	DK18223310	Ceramic 0.022μF
C207	1	1	1	DK18223310	Ceramic 0.022μF
C208	1	1	1	DK18223310	Ceramic 0.022μF
C209	1	1	1	DK18223310	Ceramic 0.022μF
C210	1	1	1	DK18223310	Ceramic 0.022μF

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
C211	1	1	1	DK18223310	Ceramic 0.022μF
C212	1	1	1	DK18223310	Ceramic 0.022μF
C213	1	1	1	DK18223310	Ceramic 0.022μF
C214	1	1	1	DK18223310	Ceramic 0.022μF
C215	1	1	1	DK18223310	Ceramic 0.022μF
C216	1	1	1	DK18403320	Ceramic 0.04μF
C218	1	1	1	DK18223310	Ceramic 0.022μF
C219	1	1	1	DK18403320	Ceramic 0.04μF
C220	1	1	1	DK18223310	Ceramic 0.022μF
C221	1	1	1	DK18223310	Ceramic 0.022μF
C222	1	1	1	DK18223310	Ceramic 0.022μF
C223	1	1	1	DK18403320	Ceramic 0.04μF
C224	1	1	1	DK18223310	Ceramic 0.002μF
C225	1	1	1	DK18223310	Ceramic 0.002μF
C226	1	1	1	DK18223310	Ceramic 0.002μF
C227	1	1	1	DK18223310	Ceramic 0.002μF
C228	1	1	1	DK18223310	Ceramic 0.002μF
C229	1	1	1	DK18223310	Ceramic 0.002μF
C230	1	1	1	DK18223310	Ceramic 0.002μF
C231	1	1	1	EA47602590	Elect 47μF 25V
C232	1	1	1	DK18223310	Ceramic 0.022μF
C233	1	1	1	DK16221300	Ceramic 220pF ±10%
C234	1	1	1	EA47503590	Elect 4.7μF 35V
C235	1	1	1	DK16221300	Ceramic 220pF ±10%
C236	1	1	1	DK16221300	Ceramic 220pF ±10%
C237	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
C238	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
C239	1	1	1	DK18223310	Ceramic 0.022μF
C240	1	1	1	DK16221300	Ceramic 220pF ±10%
C241	1	1	1	DK18223310	Ceramic 0.022μF
C242	1	1	1	DK18223310	Ceramic 0.022μF
C243	1	1	1	DK18223310	Ceramic 0.022μF
C244	1	1	1	DK18223310	Ceramic 0.022μF
C245	1	1	1	DK18223310	Ceramic 0.022μF
C246	1	1	1	DK18223310	Ceramic 0.022μF
C247	1	1	1	DK18403320	Ceramic 0.04μF
C248	1	1	1	DK18223310	Ceramic 0.022μF
C249	1	1	1	DF55152030	Film 1500pF ±5%
C250	1	1	1	DF55681010	Film 680pF ±5%
C251	1	1	1	DF55911010	Film 910pF ±5%
C252	1	1	1	DF55471010	Film 470pF ±5%
C253	1	1	1	DF15102300	Film 0.001μF ±5%
C254	1	1	1	EA10701690	Elect 100μF 16V
C255	1	1	1	EA10701690	Elect 100μF 16V
C256	1	1	1	DK18223310	Ceramic 0.022μF
C257	1	1	1	DK18223310	Ceramic 0.022μF
C258	1	1	1	DK16221300	Ceramic 220pF
C259	1	1	1	EV22403560	Elect 0.22μF 35V
C260	1	1	1	DK18403320	Ceramic 0.04μF
C261	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
C262	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
C263	1	1	1	DK16221300	Ceramic 220pF ±10%
C264	1	1	1	EA10505090	Elect 1μF 50V
C265	1	1	1	DK18223310	Ceramic 0.022μF
C266	1	1	1	DK18223310	Ceramic 0.022μF

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
C267	1	1	1	DK18223310	Ceramic 0.022μF
C268	1	1	1	DK18223310	Ceramic 0.022μF
C269	1	1	1	DK16221300	Ceramic 220pF ±10%
C270	1	1	1	DK18223310	Ceramic 0.022μF
C271	1	1	1	DK16221300	Ceramic 220pF ±10%
C272	1	1	1	EA10505090	Elect 1μF 50V
C273	1	1	1	DK18223310	Ceramic 0.022μF
C274	1	1	1	DK16221300	Ceramic 220pF ±10%
C275	1	1	1	DK16221300	Ceramic 220pF ±10%
C276	1	1	1	DK18223310	Ceramic 0.022μF
C278	1	1	1	DK18223310	Ceramic 0.022μF
C279	1	1	1	EE10405040	Elect 0.1μF 50V
C280	1	1	1	DK18223310	Ceramic 0.022μF
C281	1	1	1	DK18223310	Ceramic 0.022μF
C282	1	1	1	DK18223310	Ceramic 0.022μF
C283	1	1	1	DK18223310	Ceramic 0.02μF
C284	1	1	1	DK18223310	Ceramic 0.022μF
C285	1	1	1	DK18223310	Ceramic 0.022μF
C286	1	1	1	DK18223310	Ceramic 0.022μF
C287	1	1	1	DK18223310	Ceramic 0.022μF
C288	1	1	1	DK16221300	Ceramic 220pF ±10%
C289	1	1	1	EE10405040	Elect 0.1μF 50V
C290	1	1	1	EA10601690	Elect 10μF 16V
C291	1	1	1	DK16221300	Ceramic 220pF ±10%
C292	1	1	1	DK16221300	Ceramic 220pF ±10%
C293	1	1	1	EA10505090	Elect 1μF 50V
C294	1	1	1	CT15000010	Trimming 50pF
C295	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
C296	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
C297	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
C298	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
C299	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
					P200-RESISTORS
					(All Resistors are ±5% and ⅛W)
RB01	1	1	1	GD05273140	27KΩ
RB03	1	1	1	GD05473140	47KΩ
RB04	1	1	1	GD05102140	1KΩ
RB05	1	1	1	GD05102140	1KΩ
RB06	1	1	1	GD05102140	1KΩ
RB07	1	1	1	GD05102140	1KΩ
RB08	1	1	1	GD05104140	100KΩ
RB09	1	1	1	GD05104140	100KΩ
RB10	1	1	1	RA01030250	Trimming 10KΩ (B)
RB11	1	1	1	RA01030250	Trimming 10KΩ (B)
RB12	1	1	1	GD05102140	1KΩ
RB13	1	1	1	GD05103140	10KΩ
RB14	1	1	1	GD05562140	5.6KΩ
RB15	1	1	1	GD05102140	1KΩ
RB16	1	1	1	GD05102140	1KΩ
RB17	1	1	1	GD05102140	1KΩ
RB18	1	1	1	GD05101140	100Ω
RB19	1	1	1	GD05151140	150Ω
RB20	1	1	1	GD05822140	8.2KΩ
RB21	1	1	1	GD05153140	15KΩ

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION	
RB22	1	1	1	GD05102140	1KΩ	
RB23	1	1	1	GD05103140	10KΩ	
RB24	1	1	1	GD05101140	100Ω	
RB25	1	1	1	GD05223140	22KΩ	
RB26	1	1	1	GD05104140	100KΩ	
RB27	1	1	1	RA02540010	Trimming	250KΩ (B)
RB28	1	1	1	GD05564140	560KΩ	
RB29	1	1	1	GD05821140	820Ω	
RB30	1	1	1	GD05821140	820Ω	
RB31	1	1	1	GD05682140	6.8KΩ	
RB32	1	1	1	GD05682140	6.8KΩ	
RB33	1	1	1	GD05223140	22KΩ	
RB34	1	1	1	GG05100140	10Ω	
RB35	1	1	1	GD05562140	5.6KΩ	
RB36	1	1	1	GD05223140	22KΩ	
RB37	1	1	1	GD05101140	100Ω	
RB39	1	1	1	GD05102140	1KΩ	
RB40	1	1	1	GG05510140	51Ω	
RB42	1	1	1	GD05473140	47KΩ	
RB43	1	1	1	GD05101140	100Ω	
RB44	1	1	1	GD05184140	180KΩ	
RB45	1	1	1	GD05102140	1KΩ	
RB46	1	1	1	GD05472140	4.7KΩ	
RB47	1	1	1	RA01040180	Trimming	100KΩ (B)
RB48	1	1	1	GG05510140	51Ω	
RB49	1	1	1	GD05221140	220Ω	
RB50	1	1	1	GD05102140	1KΩ	
R151	1	1	1	GD05510140	51Ω	
R152	1	1	1	RA01030250	Trimming	10KΩ (B)
R153	1	1	1	GD05103140	10KΩ	
R154	1	1	1	GD05103140	10KΩ	
R155	1	1	1	GD05102140	1KΩ	
R156	1	1	1	GD05102140	1KΩ	
R157	1	1	1	GD05201140	200Ω	
R158	1	1	1	GG05101140	100Ω	
R160	1	1	1	GD05104140	100KΩ	
R161	1	1	1	GD05103140	10KΩ	
R162	1	1	1	GD05332140	3.3KΩ	
R201	1	1	1	GD05331140	330Ω	
R202	1	1	1	GD05102140	1KΩ	
R203	1	1	1	GD05101140	100Ω	
R204	1	1	1	GD05102140	1KΩ	
R205	1	1	1	GD05202140	2KΩ	
R206	1	1	1	GD05153140	15KΩ	
R207	1	1	1	GD05201140	220Ω	
R208	1	1	1	GD05102140	1KΩ	
R209	1	1	1	GD05102140	1KΩ	
R210	1	1	1	GD05102140	1KΩ	
R211	1	1	1	GD05102140	1KΩ	
R212	1	1	1	GD05102140	1KΩ	
R213	1	1	1	GD05101140	100Ω	
R214	1	1	1	GD05101140	100Ω	
R215	1	1	1	GD05562140	5.6KΩ	
R216	1	1	1	GD05104140	100KΩ	
R217	1	1	1	GD05331140	330Ω	
R218	1	1	1	GD05101140	100Ω	
R219	1	1	1	GD05331140	330Ω	
R220	1	1	1	GD05102140	1KΩ	

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
R221	1	1	1	GD05101140	100Ω
R222	1	1	1	GD05101140	100Ω
R223	1	1	1	GD05102140	1KΩ
R224	1	1	1	GD05102140	1KΩ
R225	1	1	1	GD05102140	1KΩ
R226	1	1	1	GD05102140	1KΩ
R227	1	1	1	GD05151140	150Ω
R228	1	1	1	GD05152140	1.5KΩ
R229	1	1	1	GD05121140	120Ω
R230	1	1	1	GD05302140	3KΩ
R231	1	1	1	GD05103140	10KΩ
R232	1	1	1	GD05152140	1.5KΩ
R233	1	1	1	GD05510140	51Ω
R234	1	1	1	GD05101140	100Ω
R236	1	1	1	GD05821140	820Ω
R237	1	1	1	GD05682140	6.8KΩ
R238	1	1	1	GD05821140	820Ω
R239	1	1	1	GD05682140	6.8KΩ
R240	1	1	1	GD05331140	330Ω
R241	1	1	1	GD05270140	27Ω
R242	1	1	1	GD05270140	27Ω
R243	1	1	1	GD05331140	330Ω
R244	1	1	1	GD05202140	2KΩ
R245	1	1	1	GD05153140	15KΩ
R246	1	1	1	GD05201140	200Ω
R247	1	1	1	GD05102140	1KΩ
R248	1	1	1	GD05101140	100Ω
R249	1	1	1	GD05102140	1KΩ
R250	1	1	1	GD05331140	330Ω
R251	1	1	1	GD05331140	330Ω
R252	1	1	1	GD05101140	100Ω
R253	1	1	1	GD05101140	100Ω
R254	1	1	1	GD05331140	330Ω
R255	1	1	1	GD05331140	330Ω
R256	1	1	1	GD05272140	2.7KΩ
R257	1	1	1	GD05272140	2.7KΩ
R258	1	1	1	GD05103140	10KΩ
R259	1	1	1	GD05182140	18KΩ
R260	1	1	1	GD05913140	91KΩ
R261	1	1	1	GD05682140	6.8KΩ
R262	1	1	1	GD05682140	6.8KΩ
R263	1	1	1	GD05823140	82KΩ
R264	1	1	1	GD05473140	47KΩ
R265	1	1	1	GD05562140	5.6KΩ
R266	1	1	1	GD05101140	100Ω
R267	1	1	1	GD05101140	100Ω
R268	1	1	1	GD05101140	100Ω
R269	1	1	1	GD05101140	100Ω
R270	1	1	1	GD05331140	330Ω
R271	1	1	1	GD05153140	15KΩ
R272	1	1	1	GD05472140	4.7KΩ
R273	1	1	1	GD05102140	1KΩ
R274	1	1	1	GD05222140	2.2KΩ
R275	1	1	1	GD05392140	3.9KΩ
R276	1	1	1	GD05223140	22KΩ

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	QTY U	QTY C	QTY N	PART NO.	DESCRIPTION
R277	1	1	1	GD05102140	1KΩ
R278	1	1	1	GD05152140	1.5KΩ
R279	1	1	1	GD05273140	27KΩ
R280	1	1	1	GD05473140	47KΩ
R281	1	1	1	GD05473140	47KΩ
R282	1	1	1	GD05102140	1KΩ
R283	1	1	1	GD05272140	2.7KΩ
R284	1	1	1	GD05102140	1KΩ
R285	1	1	1	GD05153140	15KΩ
R286	1	1	1	GD05472140	4.7KΩ
R287	1	1	1	GD05102140	1KΩ
R288	1	1	1	GD05102140	1KΩ
R289	1	1	1	GD05513140	51KΩ
R290	1	1	1	GD05102140	1KΩ
R291	1	1	1	GD05273140	27KΩ
R292	1	1	1	GD05223140	22KΩ
R293	1	1	1	GD05473140	47KΩ
R294	1	1	1	GD05472140	4.7KΩ
R295	1	1	1	GD05153140	15KΩ
R296	1	1	1	GD05102140	1KΩ
R297	1	1	1	GD05102140	1KΩ
R298	1	1	1	GD05101140	100Ω
R299	1	1	1	GD05101140	100Ω
					P200-SEMICONDUCTORS
Q151	1	1	1	HC10019010	IC HA1197
Q152	1	1	1	HV00006120	Varistor
Q201	1	1	1	HF200191A0	F.E.T. 2SK19 (Y)
Q202	1	1	1	HT310471C0	Transistor 2SC1047 (C)
Q203	1	1	1	HC10019030	IC LA1222
Q204	1	1	1	HD20011050	Diode 1S1555
Q205	1	1	1	HF200191A0	F.E.T. 2SK19 (Y)
Q206	1	1	1	HC10017060	IC μPC1163H
Q207	1	1	1	HC10017060	IC μPC1163H
Q208	1	1	1	HC10019030	IC LA1222
Q209	1	1	1	HT308291C0	Transistor 2SC829 (C)
Q210	1	1	1	HT308291C0	Transistor 2SC829 (C)
Q211	1	1	1	HD20011050	Diode 1S1555
Q212	1	1	1	HD20011050	Diode 1S1555
Q213	1	1	1	HF200191A0	F.E.T. 2SK19 (Y)
Q214	1	1	1	HT310471C0	Transistor 2SC1047 (C)
Q215	1	1	1	HC10019030	IC LA1222
Q216	1	1	1	HC10017060	IC μPC1163H
Q217	1	1	1	HT108422A0	Transistor 2SA842 (GR or BL)
Q218	1	1	1	HT315832B0	Transistor 2SC1583 (G or H)
Q219	1	1	1	HT308291C0	Transistor 2SC829C
Q220	1	1	1	HD10003020	Diode 20A90
Q221	1	1	1	HD10003020	Diode 20A90
Q222	1	1	1	HD10003020	Diode 20A90
Q223	1	1	1	HD10003020	Diode 20A90
Q224	1	1	1	HC10011060	IC μPC555H
Q225	1	1	1	HT308291C0	Transistor 2SC829C
Q226	1	1	1	HD10003020	Diode 20A90
Q227	1	1	1	HD10003020	Diode 20A90
Q228	1	1	1	HT308291C0	Transistor 2SC829C

REF. DESIG.	QTY U	QTY C	QTY N	PART NO.	DESCRIPTION
Q229	1	1	1	HD10003020	Diode 20A90
Q230	1	1	1	HD10003020	Diode 20A90
Q231	1	1	1	HC10019030	IC LA1222
Q232	1	1	1	HF200300D0	F.E.T. 2SK30
Q233	1	1	1	HT308291C0	Transistor 2SC829C
Q234	1	1	1	HT308291C0	Transistor 2SC829C
Q235	1	1	1	HD20011050	Diode 1S1555
Q236	1	1	1	HD20011050	Diode 1S1555
Q237	1	1	1	HD10003020	Diode 20A90
					P200-MISCELLANEOUS
F151	1	1	1	FF10045190	Ceramic Filter 455kHz
F201	1	1	1	FF31070010	L.C. Filter
F202	1	1	1	FF11070550	Ceramic Filter 10.7MHz
F203	1	1	1	FF11070540	Ceramic Filter 10.7MHz
F204	1	1	1	FF11070540	Ceramic Filter 10.7MHz
F205	1	1	1	FF11070550	Ceramic Filter 10.7MHz
F206	1	1	1	FF11070530	Ceramic Filter 10.7MHz
L151	1	1	1	LA10010190	Ant. Coil, AM RF
L152	1	1	1	LO10010480	OSC Coil, AM
L153	1	1	1	LI10010720	I.F.T. AM
L154	1	1	1	LI10015060	I.F.T. AM
L201	1	1	1	LC13320020	Choke Coil 3.3μH
L202	1	1	1	LI10156060	I.F.T. FM
L203	1	1	1	LI10016160	I.F.T. FM
L204	1	1	1	LC13320020	Choke Coil 3.3μH
L205	1	1	1	LI10156170	I.F.T. FM
L206	1	1	1	LI10156180	I.F.T. FM
L207	1	1	1	LS10290180	M.P.X. Coil
L208	1	1	1	LS10290170	M.P.X. Coil
L209	1	1	1	LS10290160	M.P.X. Coil
L210	1	1	1	LC13320020	Choke Coil 3.3μH
L211	1	1	1	LC12230020	Choke Coil 22μH
L212	1	1	1	LI10156190	I.F.T. FM
L213	1	1	1	LI10156200	I.F.T. FM
L214	1	1	1	LC13320020	Choke Coil 3.3μH
					P300-MPX CIRCUIT BOARD
P300	1	1	1	YG22860020	P.W. Board, MPX
	1	1		ZZ22860020	P.W. Board Assembly
			1	ZZ22868020	P.W. Board Assembly
					P300-CAPACITORS
C301	1	1	1	EA10601690	Elect 10μF 16V
C302	1	1	1	DF16222300	Film 0.0022μF ±10%
C303	1	1	1	EA33502590	Elect 3.3μF 25V
C304	1	1	1	EQ47405010	Elect 0.47μF 50V
C305	1	1	1	EV33403560	Elect 0.33μF 35V
C306	1	1	1	EA33502590	Elect 3.3μF 25V
C307	1	1	1	EV33403560	Elect 0.33μF 35V
C308	1	1	1	DF17473010	Film 0.047μF ±20%
C309	1	1	1	DF15103050	Film 0.01μF ±5%
C310	1	1	1	DF55102090	Film 0.001μF ±5%

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DECRIPTION
C311	1	1	1	DF17473010	Film 0.047μF ±20%
C312	1	1	1	DF17683010	Film 0.068μF ±20%
C313	1	1	1	EA10505090	Elect 1μF 50V
C314	1	1	1	EA47405090	Elect 0.47μF 50V
C315	1	1	1	EA47405090	Elect 0.47μF 50V
C316	1	1	1	EA10701690	Elect 100μF 16V
C317	1	1	1	EA10701690	Elect 100μF 16V
C318	1	1	1	DF16152050	Film 0.0015μF ±10%
C319	1	1		DF15272050	Film 2700pF ±5%
C319			1	DF15562050	Film 5600pF ±5%
C320	1	1		DF15562050	Film 5600pF ±5%
C321	1	1		DF15562050	Film 5600pF ±5%
C322	1	1		DF15272050	Film 2700pF ±5%
C322			1	DF15562050	Film 5600pF ±5%
C323	1	1	1	EA10601690	Elect 10μF 16V
C324	1	1	1	EA10601690	Elect 10μF 16V
C325	1	1	1	EA10701090	Elect 100μF 10V
C326	1	1	1	EA10701090	Elect 100μF 10V
C327	1	1	1	EA22701690	Elect 220μF 16V
C328	1	1	1	DD11100370	Ceramic 10pF ±0.5pF
C329	1	1	1	DK18104010	Ceramic 0.1μF
C330	1	1	1	DK18104010	Ceramic 0.1μF
C321	1	1	1	DK18104010	Ceramic 0.1μF
C332	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
					P300-RESISTORS
					(All Resistors are ±5% and ¼W)
R301	1	1	1	GD05102140	1KΩ
R302	1	1	1	RA01040220	Trimming 100KΩ (B)
R303	1	1	1	GD05333140	33KΩ
R304	1	1	1	GD05102140	1KΩ
R305	1	1	1	GD05680140	68Ω
R306	1	1	1	GD05512140	5.1KΩ
R307	1	1	1	GD05392140	3.9KΩ
R308	1	1	1	GD05392140	3.9KΩ
R309	1	1	1	GD05512140	5.1KΩ
R310	1	1	1	GD05820140	82Ω
R311	1	1	1	GD05562140	5.6KΩ
R312	1	1	1	GD05272140	2.7KΩ
R313	1	1	1	RA04720070	Trimming 4.7KΩ (B)
R314	1	1	1	GD05224140	220KΩ
R315	1	1	1	GD05333140	33KΩ
R316	1	1	1	GD05224140	220KΩ
R317	1	1	1	GD05682140	6.8KΩ
R318	1	1	1	GD05102140	1KΩ
R319	1	1	1	GD05104140	100KΩ
R321	1	1	1	GD05104140	100KΩ
R322	1	1	1	GD05273140	27KΩ
R323	1	1	1	GD05104140	100KΩ
R324	1	1	1	GD05102140	1KΩ
R325	1	1	1	GD05101140	100Ω
R326	1	1	1	GD05333140	33KΩ
R327	1	1	1	GD05273140	27KΩ
R328	1	1	1	GD05101140	100Ω
R329	1	1	1	GD05101140	100Ω
R330	1	1	1	GD05102140	1KΩ
R331	1	1	1	GD05102140	1KΩ

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
R332	1	1	1	GD05222140	2.2KΩ
R333	1	1	1	GD05302140	3KΩ
R334	1	1	1	GD05302140	3KΩ
R335	1	1	1	GD05222140	2.2KΩ
R336	1	1	1	GD05104140	100KΩ
R337	1	1	1	GD05102140	1KΩ
R339	1	1	1	GD05123140	12KΩ
R341	1	1	1	GD05822140	8.2KΩ
R342	1	1	1	GD05564140	560KΩ
R343	1	1	1	GD05470140	47Ω
R344	1	1	1	GD05332140	3.3KΩ
R345	1	1	1	GD05103140	10KΩ
R347	1	1	1	GD05104140	100KΩ
R348	1	1	1	GD05102140	1KΩ
R349	1	1	1	RA04730070	Trimming, 47KΩ (B)
R350	1	1	1	GD05223140	22KΩ
R351	1	1	1	GD05333140	33KΩ
R352	1	1	1	GD05333140	33KΩ
R353	1	1	1	GD05274140	270KΩ
R354	1	1	1	GD05331140	330Ω
R356	1	1	1	GD05332140	3.3KΩ
R357	1	1	1	GD05332140	3.3KΩ
R358	1	1	1	GD05332140	3.3KΩ
R359	1	1	1	GD05332140	3.3KΩ
R360	1	1	1	GD05103140	10KΩ
R361	1	1	1	GD05103140	10KΩ
R362	1	1	1	GD05561140	560Ω
R363	1	1	1	GD05561140	560Ω
R364	1	1	1	GD05272140	2.7KΩ
R365	1	1	1	GD05272140	2.7KΩ
R366	1	1	1	RA01040220	Trimming, 100KΩ (B)
R367	1	1	1	RA01040220	Trimming, 100KΩ (B)
R368	1	1	1	RA01040220	Trimming, 100KΩ (B)
R369	1	1	1	RA01040220	Trimming, 100KΩ (B)
R370	1	1	1	GD05510410	51Ω
R371	1	1	1	GD05333140	33KΩ
R372	1	1	1	GD05333140	33KΩ
R373	1	1	1	GD05183140	18KΩ
R374	1	1	1	GD05224140	220KΩ
R375	1	1	1	GD05221140	220Ω
R376	1	1	1	GD05510140	51Ω
					P300-SEMICONDUCTORS
Q301	1	1	1	HC10029010	IC HA11223
Q302	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q303	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q304	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q305	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q306	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q307	1	1	1	HD10003020	Diode 2OA90
Q308	1	1	1	HD10003020	Diode 2OA90
Q309	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q310	1	1	1	HT108422A0	Transistor 2SA842(GR or BL)

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
Q311	1	1	1	HT108422A0	Transistor 2SA842(GR or BL)
Q312	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q313	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q314	1	1	1	HD20011050	Diode 1S1555
Q315	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q316	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q317	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q318	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q319	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
Q320	1	1	1	HD20011050	Diode 1S1555
Q321	1	1	1	HC10003090	IC NSM4558D
Q322	1	1	1	HD20011050	Diode 1S1555
					P300-COILS
L301	1	1	1	LS35050010	M.P.X. Coil
L302	1	1	1	LS35050010	M.P.X. Coil
L303	1	1	1	LC21058010	Choke Coil 1mH
					P800-POWER SUPPLY CIRCUIT BOARD
P800	1	1		YG22860030	P.W. Board, Power Supply
	1	1		ZZ22860030	P.W. Board Assembly
P800			1	YG22860050	P.W. Board, Power Supply
			1	YG22860050	P.W. Board Assembly
					P800-CAPACITORS
C801	1	1	1	EA10635010	Elect 10μF 350V
C802	1	1	1	EA10635010	Elect 10μF 350V
C803	1	1	1	EA10625010	Elect 10μF 250V
C804	1	1	1	EA10625010	Elect 10μF 250V
C805	1	1	1	EA33502590	Elect 3.3μF 25V
C806	1	1	1	EA22702590	Elect 220μF 25V
C807	1	1	1	EB22802560	Elect 2200μF 25V
C808	1	1	1	EA10701690	Elect 100μF 25V
C809	1	1	1	EA47702590	Elect 470μF 25V
C810	1	1	1	EA47702590	Elect 470μF 25V
C811	1	1	1	EB22802560	Elect 220μF 25V
C813	1	1	1	EA47702590	Elect 470μF 25V
C814	1	1	1	EA10702590	Elect 100μF 25V
C815	1	1	1	EA10701690	Elect 100μF 16V
C816	1	1	1	EA47701690	Elect 470μF 16V
C817	1	1	1	EA47601690	Elect 47μF 16V
C818	1	1	1	EA33502590	Elect 3.3μF 25V
C819	1	1	1	EA10701090	Elect 100μF 10V
C820	1	1	1	DK18103510	Ceramic 0.01μF 500V
C821	1	1	1	DK18103510	Ceramic 0.01μF 500V
C822	1	1	1	DK18103510	Ceramic 0.01μF 500V
					P800-RESISTORS (All Resistors are ±5% and ¼W)
R801	1	1		GG05472120	4.7KΩ ½W
R801			1	GG05472120	4.7KΩ
R802	1	1	1	GA05161010	160Ω 1W
R803	1	1	1	GA05271010	270Ω 1W
R804	1	1	1	GD05332140	3.3KΩ
R805	1	1	1	GD05473140	47KΩ
R806	1	1	1	GD05473140	47KΩ
R807	1	1	1	GD05331140	330Ω
R808	1	1	1	GD05102140	1KΩ
R809	1	1	1	GA05151010	150Ω 1W

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
R810	1	1	1	GG05151140	150Ω
R811	1	1	1	GG05151140	150Ω
R812	1	1		GA05033020	3.3Ω 2W
R812			1	RF05033120	Fusible, 3.3Ω ½W
R813	1	1	1	GD05472140	4.7KΩ
R814	1	1	1	GD05751140	750Ω
R815	1	1	1	GD05102140	1KΩ
R816	1	1	1	GD05222140	2.2KΩ
R817	1	1	1	GD05154140	150KΩ
R818	1	1	1	GD05101140	100Ω
R819	1	1	1	GD05274140	270KΩ
R820	1	1	1	GD05100140	10Ω
R821	1	1	1	GD05153140	15KΩ
R822	1	1	1	GD05473140	47KΩ
R823	1	1	1	GN10822030	0.82Ω 3W
R824	1	1	1	GD05100140	10Ω
					P800-SEMICONDUCTORS
Q801	1	1	1	HD20021100	Diode 2DL15
Q802	1	1	1	HD20014030	Diode DS130YA
Q803	1	1	1	HD20014030	Diode DS130YA
Q804	1	1	1	HD30027090	Zener WZ140
Q805	1	1	1	HT403132A0	Transistor 2SD313(D or E)
Q806	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q807	1	1	1	HT404002D0	Transistor 2SD400(E or F)
Q808	1	1	1	HT205442D0	Transistor 2SB544(E or F)
Q809	1	1	1	HD30052090	Zener WZ056
Q810	1	1	1	HT205442D0	Transistor 2SB544(E or F)
Q811	1	1	1	HD30027090	Zener WZ140
Q812	1	1	1	HD20005010	Diode W06B
Q813	1	1	1	HD20005010	Diode W06B
Q814	1	1	1	HD20011050	Diode 1S1555
Q815	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q816	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q817	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q818	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q819	1	1	1	HD20005010	Diode W06B
					P800-MISCELLANEOUS
F801	1	1		FS10300060	Fuse 3A
F801			1	FS10125800	Fuse 1.25AT 250V
F802	1	1		FS10030020	Fuse 0.3A 250V
F802			1	FS10031800	Fuse 315mA 250V
F803	1	1		FS10010080	Fuse 0.1A 250V
F803			1	FS30500010	Fuse 50mA 250V
F804	1	1		FS10010080	Fuse 0.1A 250V
F804			1	FS30500010	Fuse 50mA 250V
F805	1	1		FS10010080	Fuse 0.1A 250V
F805			1	FS30500010	Fuse 50mA
J801	1	1	1	YP06001310	Plug (6P)
J823 ~ J832	10	10		YJ08000170	Jack, Fuse Holder
J823 ~ J832			10	YJ08000270	Jack, Fuse Holder

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					P900-SCOPE AMP. CIRCUIT BOARD
P900	1	1	1	YK22190310	P.W. Board, Scope AMP.
	1	1	1	ZZ22860310	P.W. Board Assembly
					P900-CAPACITORS
C901	1	1	1	DK18103820	Ceramic 0.01μF 1KV
C902	1	1	1	DK18103820	Ceramic 0.01μF 1KV
C903	1	1	1	DF17473520	Film 0.047μF ±20% 200V
					P900-RESISTORS (All Resistor are ±5% and ¼W)
R901	1	1	1	RT05224140	220KΩ
R902	1	1	1	RT05224140	220KΩ
R903	1	1	1	RT05224140	220KΩ
R904	1	1	1	RT05224140	220KΩ
R905	1	1	1	RT05682140	6.8KΩ
R906	1	1	1	RT05682140	6.8KΩ
R907	1	1	1	RT05222140	2.2KΩ
R908	1	1	1	RT05222140	2.2KΩ
R909	1	1	1	RT05103140	10KΩ
R910	1	1	1	RT05103140	10KΩ
R911	1	1	1	RT05103140	10KΩ
R912	1	1	1	RT05103140	10KΩ
R913	1	1	1	RT05683140	68KΩ
R914	1	1	1	RT05683140	68KΩ
R915	1	1	1	RT05623140	62KΩ
R916	1	1	1	RT05623140	62KΩ
R917	1	1	1	RT05823140	82KΩ
R918	1	1	1	RT05204140	200KΩ
R919	1	1	1	RT05105140	1MΩ
R920	1	1	1	RT05105140	1MΩ
R921	1	1	1	RT05224140	220KΩ
R922	1	1	1	RT05155140	1.5MΩ
R923	1	1	1	RT05153140	15KΩ
R924	1	1	1	RT05473140	47KΩ
R925	1	1	1	RA01030250	Trimming, 10KΩ
R926	1	1	1	RA01030250	Trimming, 10KΩ
R927	1	1	1	RA01020150	Trimming, 1KΩ
R928	1	1	1	RA01020150	Trimming, 1KΩ
R929	1	1	1	RT05204140	200KΩ
R930	1	1	1	RT05152140	1.5KΩ
R931	1	1	1	RA01030070	Trimming, 10KΩ
R932	1	1	1	RT05473140	47KΩ
					P900-SEMICONDUCTORS
Q901	1	1	1	HF200304A0	F.E.T. 2SK30A
Q902	1	1	1	HF200304A0	F.E.T. 2SK30A
Q903	1	1	1	HF200304A0	F.E.T. 2SK30A
Q904	1	1	1	HF200304A0	F.E.T. 2SK30A
Q905	1	1	1	HT317562B0	Transistor 2SC1756(D or E)
Q906	1	1	1	HT317562B0	Transistor 2SC1756(D or E)
Q907	1	1	1	HT317562B0	Transistor 2SC1756(D or E)
Q908	1	1	1	HT317562B0	Transistor 2SC1756(D or E)
Q909	1	1	1	HD20003210	Diode 1SC2471
Q910	1	1	1	HD20003210	Diode 1SC2471
Q911	1	1	1	HD20001210	Diode 1SC2473

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					P900-MISCELLANEOUS
J901	1	1	1	YP06001630	Plug (8P)
J902	1	1	1	YP06001050	Plug (5P)
J903	1	1	1	YP06001050	Plug (5P)
J904	1	1	1	YB00140030	Connective Cord.
J905	1	1	1	YB00180010	Connective Cord.
J906	1	1	1	YB00140030	Connective Cord.
J907	1	1	1	YB00120010	Connective Cord.
J908	1	1	1	YB00140040	Connective Cord.
J909	1	1	1	YB00150010	Connective Cord.
J910	1	1	1	YB00180020	Connective Cord.
J911	1	1	1	YB00200090	Connective Cord.
J912	1	1	1	YB00180030	Connective Cord
J913	1	1	1	YB00210010	Connective Cord
J914	1	1	1	YJ06001310	Jack (6P)
					PC50-PLL. OSC CIRCUIT BOARD
PC50	1	1	1	YK22860220	P.W. Board, PLL. OSC
	1	1	1	ZZ22860220	P.W. Board Assembly
					PC50-CAPACITORS
CC51	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
CC52	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
CC53	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
CC54	1	1	1	DK18223310	Ceramic 0.022μF +100% −0
CC56	1	1	1	CT15000010	Trimming 50pF
CC57	1	1	1	DK18403320	Ceramic 0.04μF +100% −0
CC58	1	1	1	EA47601090	Elect 47μF 10V
CC59	1	1	1	EQ22505020	Elect 2.2μF 50V
CC61	1	1	1	DF16224050	Film 0.22μF ±10%
					PC50-RESISTORS (All Resistors are ±5% and ¼W)
RC51	1	1	1	GD05123140	12KΩ
RC52	1	1	1	GD05562140	5.6KΩ
RC53	1	1	1	GD05102140	1KΩ
RC54	1	1	1	GD05224140	220KΩ
RC55	1	1	1	GD05182140	1.8KΩ
RC56	1	1	1	GD05223140	33KΩ
RC57	1	1	1	GD05104140	100KΩ
RC58	1	1	1	GD05222140	2.2KΩ
RC59	1	1	1	GD05223140	22KΩ
RC60	1	1	1	GD05103140	10KΩ
RC61	1	1	1	GD05104140	100KΩ
RC62	1	1	1	GD05223140	22KΩ
RC63	1	1	1	GD05304140	300KΩ
RC64	1	1	1	GD05473140	47KΩ
RC65	1	1	1	GD05332140	3.3KΩ
RC66	1	1	1	GD05104140	100KΩ
RC67	1	1	1	GD05334140	330KΩ
RC68	1	1	1	GD05104140	100KΩ
RC70	1	1	1	GD05391140	390Ω
RC71	1	1	1	GD05102140	1KΩ
RC72	1	1	1	GD05623140	62KΩ

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					PC50-SEMICONDUCTORS
QC51	1	1	1	HT308291C0	Transistor 2SC829(C)
QC52	1	1	1	HT308291C0	Transistor 2SC829(C)
QC53	1	1	1	HC10032010	IC HD7490
QC54	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC55	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC56	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC57	1	1	1	HT402272A0	Transistor 2SD227
QC58	1	1	1	HC10008060	IC μPD861C
QC59	1	1	1	HT402272A0	Transistor 2SD227
QC61	1	1	1	HD20011050	Diode 1S1555
					PC50-MISCELLANEOUS
LC51	1	1	1	LY20120200	Relay
LC52	1	1	1	LC13320020	Choke Coil 3.3μH
LC53	1	1	1	LC13320020	Choke Coil 3.3μH
XC51	1	1	1	XA104101L2	Crystal 10.24MHz
					PK01-DOLBY SOCKET CIRCUIT BOARD
PK01	1	1		YA22180310	P.W. Board, Dolby Socket
	1	1		ZZ22180310	P.W. Board Assembly
JK01 ~ JK08	8	8		YP10001130	Plug
JK09	1	1		YJ07000120	Jack (10P)
SK01	1	1		SC01020240	Micro Switch
SK02	1	1		SC01020240	Micro Switch
					PR00-SCOPE SWITCH CIRCUIT BOARD
PR00	1	1	1	YK22861210	P.W. Board, Scope Switch
	1	1	1	ZZ22861210	P.W. Board Assembly
					PR00-CAPACITORS
CR01	1	1	1	DF17473050	Film 0.047μF ±20%
CR02	1	1	1	EV22403560	Elect 0.22μF 35V
CR03	1	1	1	EV22403560	Elect 0.22μF 35V
CR04	1	1	1	EE47405040	Elect 0.47μF 50V
CR05	1	1	1	EA47503590	Elect 4.7μF 35V
					PR00-RESISTORS (All Resistors are ±5% and ¼W)
RR01	1	1	1	GD05221140	220Ω
RR02	1	1	1	GA05181010	180Ω 1W
RR03	1	1	1	GD05473140	47KΩ
RR04	1	1	1	GD05473140	47KΩ
RR05	1	1	1	GD05394140	390KΩ
RR06	1	1	1	GD05153140	15KΩ
RR07	1	1	1	GD05473140	47KΩ
RR08	1	1	1	GD05473140	47KΩ
RR09	1	1	1	GD05473140	47KΩ
RR10	1	1	1	GD05153140	15KΩ
RR11	1	1	1	GD05103140	10KΩ
RR12	1	1	1	GD05304140	300KΩ
RR13	1	1	1	GD05473140	47KΩ
					PR00-MISCELLANEOUS
JR01	1	1	1	YJ06001330	Jack (8P)
SR01	1	1	1	SP04050192	Push Switch, Scope

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					PS00-AM/FM/WIDE SWITCH CIRCUIT BOARD
PS00	1	1	1	YK22860410	P.W. Board, AM/FM/Wide Switch
	1	1	1	ZZ22860410	P.W. Board Assembly
					PS00-CAPACITOR
CS01	1	1	1	EA10601690	Elect 10μF 16V
					PS00-RESISTORS
RS01	1	1	1	GD05154140	150KΩ ±5% ¼W
RS02	1	1	1	GD05682140	6.8KΩ ±5% ¼W
					PS00-SEMICONDUCTORS
QS01	1	1	1	HD10003020	Diode 2OA90
QS02	1	1	1	HD10003020	Diode 2OA90
QS03	1	1	1	HD10003020	Diode 2OA90
					PS00-SWITCH
SS01	1	1	1	SP08030070	Push Switch, Function
					PT00-MODE SWITCH CIRCUIT BOARD
PT00	1	1	1	YG22860040	P.W. Board, Mode Switch
	1	1		ZZ22860040	P.W. Board Assembly
			1	ZZ22868040	P.W. Board Assembly
					PT00-CAPACITORS
CT01	1	1	1	EA10601690	Elect 10μF 16V
CT02	1	1	1	EA10601690	Elect 10μF 16V
CT03	1	1	1	EA10701690	Elect 100μF 16V
CT04	1	1	1	EA10701690	Elect 100μF 16V
CT05	1	1	1	EV22403560	Elect 0.22μF 35V
CT06	1	1	1	EV22403560	Elect 0.22μF 35V
CT07	1	1	1	EA10601690	Elect 10μF 16V
CT08	1	1	1	EA10601690	Elect 10μF 16V
CT09	1	1	1	EA10601690	Elect 10μF 16V
CT10	1	1	1	EA10601690	Elect 10μF 16V
CT11	1	1	1	EA47503590	Elect 4.7μF 35V
CT12	1	1	1	EA10601690	Elect 10μF 16V
CT14	1	1	1	DF15153300	Film 0.015μF ±5%
CT15	1	1	1	DF15153300	Film 0.015μF ±5%
CT16	1	1	1	DF15153300	Film 0.015μF ±5%
CT17	1	1	1	DK16471300	Ceramic 470pF ±10%
CT18	1	1	1	DF65501010	Film 500pF ±5%
CT19	1	1	1	DK18223310	Ceramic 0.022μF +100% -O
CT20	1	1	1	DF15472300	Film 0.0047μF ±5%
CT21	1	1	1	DD15330370	Ceramic 33pF ±5%
CT22	1	1	1	DK18223310	Ceramic 0.022μF +100% -O
CT23	1	1	1	DK18223310	Ceramic 0.022μF +100% -O
CT24	1	1	1	DK18223310	Ceramic 0.022μF +100% -O
CT25	1	1	1	DK18403320	Ceramic 0.04μF +100% -O
CT26	1	1	1	DF16153300	Film 0.015μF ±10%
CT27	1	1	1	EA10701690	Elect 100μF 16V
CT28	1	1	1	EA10601690	Elect 10μF 16V
CT30	1	1	1	EA10505090	Elect 1μF 50V
CT31	1	1	1	DK18403320	Ceramic 0.04μF +100% -O

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- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					PT00-RESISTORS (All Resistors are ±5% and ¼W)
RT01	1	1	1	GD05105140	1MΩ
RT02	1	1	1	GD05105140	1MΩ
RT03	1	1	1	GD05104140	100KΩ
RT04	1	1	1	GD05104140	100KΩ
RT05	1	1	1	GD05822140	8.2KΩ
RT06	1	1	1	GD05822140	8.2KΩ
RT07	1	1	1	GD05103140	10KΩ
RT08	1	1	1	GD05103140	10KΩ
RT09	1	1		RA02230070	Trimming, 20KΩ
RT10	1	1		RA02230070	Trimming, 20KΩ
RT11	1	1	1	GD05334140	330KΩ
RT12	1	1	1	GD05334140	330KΩ
RT13	1	1	1	GD05102140	1KΩ
RT14	1	1	1	GD05102140	1KΩ
RT15	1	1	1	GD05472140	4.7KΩ
RT16	1	1	1	GD05472140	4.7KΩ
RT17	1	1	1	GD05104140	100KΩ
RT18	1	1	1	GD05104140	100KΩ
RT19	1	1	1	GD05473140	47KΩ
RT20	1	1	1	GD05473140	47KΩ
RT21	1	1	1	GD05102140	1KΩ
RT22	1	1	1	GD05102140	1KΩ
RT24	1	1	1	GD05101140	100Ω
RT25	1	1	1	GG05271140	270Ω
RT26	1	1	1	GG05101140	100Ω
RT27	1	1	1	GG05101140	100Ω
RT30	1	1	1	GD05153140	15KΩ
RT31	1	1	1	GD05153140	15KΩ
RT32	1	1	1	GD05563140	56KΩ
RT33	1	1	1	GD05153140	15KΩ
RT34	1	1	1	GD05222140	2.2KΩ
RT35	1	1	1	GD05152140	1.5KΩ
RT36	1	1	1	GD05103140	10KΩ
RT37	1	1	1	RA04730070	Trimming, 47KΩ (B)
RT38	1	1	1	GD05153140	15KΩ
RT39	1	1	1	GD05222140	2.2KΩ
RT40	1	1	1	GD05102140	1KΩ
RT41	1	1	1	GD05333140	33KΩ
RT42	1	1	1	GD05472140	4.7KΩ
RT43	1	1	1	GD05102140	1KΩ
RT45	1	1	1	GD05102140	1KΩ
RT46	1	1	1	RA04730070	Trimming
RT47	1	1	1	GD05564140	560KΩ
RT48	1	1	1	GD05101140	100Ω
RT50	1	1	1	GD05221140	220Ω
RT53	1	1	1	GD05333140	33KΩ
RT54	1	1	1	GD05223140	22KΩ
RT55	1	1	1	GD05223140	22KΩ
RT56	1	1	1	GG05101140	100Ω
RT58	1	1	1	GD05154140	150KΩ
RT59	1	1	1	GD05221140	220Ω
RT60	1	1	1	GD05104140	100KΩ
RT61	1	1	1	GD05473140	47KΩ
RT62	1	1	1	GD05473140	47KΩ

REF. DESIG.	Q'TY U	C	N	PART NO.	DESCRIPTION
					PT00-SEMICONDUCTORS
QT01	1	1	1	HC10003090	IC NJM4558D
QT02	1	1	1	HT313272A0	Transistor 2SC1327(S or T)
QT03	1	1	1	HT313272A0	Transistor 2SC1327(S or T)
QT04	1	1	1	HT312222A0	Transistor 2SC1222(F or E)
QT05	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
QT06	1	1	1	HT308291C0	Transistor 2SC829(C)
QT07	1	1	1	HT308291C0	Transistor 2SC829(C)
QT08	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
QT09	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
QT11	1	1	1	HT107332A0	Transistor 2SA733(P or Q)
QT12	1	1	1	HT309452A0	Transistor 2SC945(P or Q)
QT13	1	1	1	HD10003020	Diode 2OA90
QT14	1	1	1	HD10003020	Diode 2OA90
QT15	1	1	1	HD20011050	Diode 1S1555
QT16	1	1	1	HD10003020	Diode 2OA90
QT17	1	1	1	HD10003020	Diode 2OA90
QT18	1	1	1	HD20011050	Diode 1S1555
					PT00-MISCELLANEOUS
LT01	1	1	1	YL20120200	Relay
LT02	1	1	1	LO71010070	OSC Coil
ST01	1	1		SP08050060	Push Switch, Mode
ST01			1	SP06040052	Push Switch, Mode
					PY00-LED CIRCUIT BOARD
PY00	1	1	1	YK22861220	P.W. Board, LED
	1	1	1	ZZ22861220	P.W. Board Assembly
					PY00-RESISTORS
RY01	1	1	1	GD05681140	680Ω ±5% ¼W
RY02	1	1	1	GD05681140	680Ω ±5% ¼W
RY03	1	1	1	GD05681140	680Ω ±5% ¼W
					PY00-SEMICONDUCTORS
QY01	1	1	1	HI10004030	L.E.D.
QY02	1	1	1	HI10004030	L.E.D.
QY03	1	1	1	HI10004030	L.E.D.
					PZ01-DIAL ILLUMINATOR CIRCUIT BOARD
PZ01	1	1	1	YF22860020	P.W. Board, Dial Illuminator
	1	1	1	ZZ22861020	P.W. Board Assembly
JZ03 ~ JZ14	12	12	12	YJ08000170	Jack
VZ01 ~ VZ06	6	6	6	IN10080070	Dial Lamp 0.2A 8V

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

9. TECHNICAL SPECIFICATIONS

[FOR U.S.A. & CANADIAN MODELS ONLY]

FM TUNER SECTION

Sensitivity	
IHF Usable	8.75 dBf (1.5 μV)
IHF 50 dB Quieting (Mono)	12.1 dBf (2.2 μV)
(Stereo)	33.2 dBf (25 μV)
Quieting Slope (Mono)	
RF Input for 30 dB Quieting	6.8 dBf (1.2 μV)
Quieting at:	
20 dBf (5.5 μV)	60 dB
25 dBf (10 μV)	66 dB
40 dBf (55 μV)	78 dB
65 dBf (1000 μV)	83 dB
Quieting Slope (Stereo)	
Quieting at:	
30 dBf (17 μV)	49 dB
40 dBf (55 μV)	62 dB
50 dBf (173 μV)	70 dB
65 dBf (1000 μV)	76 dB
Distortion (Mono) at 65 dBf (1000 μV)	
100 Hz	NARROW: 0.07%, WIDE: 0.05%
1000 Hz	NARROW: 0.07%, WIDE: 0.05%
6000 Hz	NARROW: 0.13%, WIDE: 0.10%
Distortion (Stereo) at 65 dBf (1000 μV)	
100 Hz	NARROW: 0.20%, WIDE: 0.09%
1000 Hz	NARROW: 0.15%, WIDE: 0.07%
6000 Hz	NARROW: 0.30%, WIDE: 0.20%
Distortion (Mono and Stereo)	
at 50 dB Quieting, 1000 Hz	0.4%
Hum and Noise	
at 65 dBf (1000 μV)	
Mono	80 dB
Frequency Response	
30 Hz to 15 kHz	
Mono	+0.2, −1.0 dB
Stereo	+0.2, −1.0 dB
Capture Ratio	
at 65 dBf (1000 μV)	NARROW: 1.5 dB, WIDE: 0.8 dB
Alternate Channel Selectivity	NARROW: 85 dB, WIDE: 45 dB
Spurious Response Rejection	120 dB
Image Response Rejection	120 dB
I.F. Rejection (Balanced)	120 dB
A.M. Suppression	65 dB
Stereo Separation	
100 Hz	NARROW: 45 dB, WIDE: 45 dB
1000 Hz	NARROW: 50 dB, WIDE: 55 dB
10 kHz	NARROW: 42 dB, WIDE: 45 dB
Subcarrier Rejection	75 dB

AM TUNER SECTION

IHF Usable Sensitivity	10 μV
Distortion (THD), 30% Modulation	0.4%
Signal-to-Noise Ratio	55 dB
Alternate Channel Selectivity	50 dB
Image Rejection	80 dB
Spurious Response Rejection	90 dB
I.F. Rejection	80 dB

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GENERAL

Power Requirements	120 V AC, 60 Hz
Power Consumption	30 W
Dimensions:	
Panel Width	416 mm (16-3/8 inches)
Panel Height	146 mm (5-3/4 inches)
Depth	301 mm (11-7/8 inches)
Weight:	
Unit alone	9 kg (19.8 lbs)
Packed for shipment	11 kg (24.2 lbs)

[FOR EUROPEAN MODEL ONLY]

FM TUNER SECTION

Frequency Range	87.4–109 MHz
Usable Sensitivity 40 kHz Deviation, 98 MHz	
Mono, S/N 26 dB	1.1 μV
Stereo, S/N 46 dB	32 μV
Alternate Channel Selectivity, 98 MHz ± 300 kHz	80 dB (NARROW)/50 dB (WIDE)
Image Response Rejection, 98 MHz	125 dB
IF Rejection, 98 MHz	125 dB
Spurious Response Rejection, 98 MHz	125 dB
AM Suppression, 98 MHz	66 dB
Signal-to-Noise Ratio, 98 MHz	
Unweighted: Mono	78 dB
Stereo	69 dB
Weighted: Mono	80 dB
Stereo	72 dB
Pilot Signal & Subcarrier Rejection	
19 kHz	70 dB
38 kHz	75 dB
Total Harmonic Distortion, 98 MHz	
Mono	0.07% (NARROW)/0.05% (WIDE)
Stereo	0.15% (NARROW)/0.07% (WIDE)
Frequency Response	
30 Hz–15 kHz	+0.2, –1.0 dB
Separation	
Stereo	50 dB (NARROW)/55 dB (WIDE)
Channel Balance	0.3 dB
Output Voltage, 1 kHz	700 mV
Output Impedance, 1 kHz	1.0 kohms
Antenna Terminals	
Balanced	300 ohms
Unbalanced	75 ohms

AM TUNER SECTION

Frequency Range	515–1650 kHz
Usable Sensitivity (26 dB S/N 30% Mod., 1 MHz)	15 μV
Selectivity, 1 MHz ± 9 kHz	26 dB
Image Rejection, 1 MHz	80 dB
IF Rejection, 1 MHz	80 dB
Spurious Response Rejection, 1 MHz	60 dB
Signal-to-Noise Ratio, 1 MHz	50 dB
Frequency Response, 1 MHz ± 3 dB	40 Hz – 2.2 kHz
Total Harmonic Distortion, 1 MHz	0.4%

GENERAL

Power Requirements	220 V AC, 50 Hz
	(E and N versions are featuring an external voltage selector for use on 110/120/240 V. Other versions can be converted by a qualified technician to operate on 110/120/240 V.)
Power Consumption	30 W
Semiconductor Complement	
Integrated Circuits	14
Transistors	57
Diodes	44
Field Effect Transistors	11
Dimensions	
Panel Width	16-3/8" (416 mm)
Panel Height	5-3/4" (146 mm)
Depth	11-55/64" (301 mm)
Weight	
Unit alone	19.8 lbs (9.0 kg)
Packed for shipment	24.2 lbs (11.0 kg)

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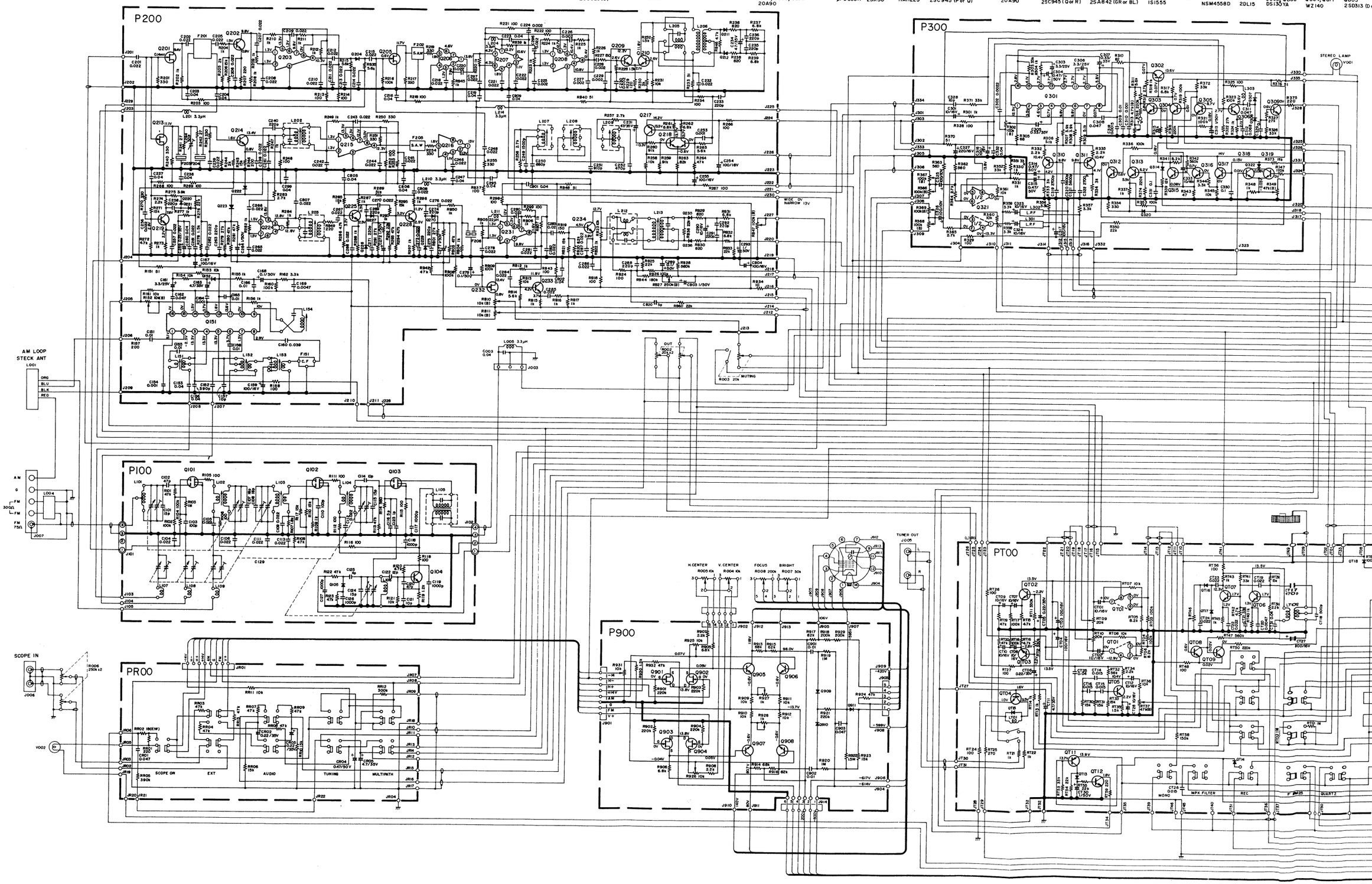
NOTE

10. SCHEMATIC DIAGRAMS

SCHEMATIC DIAGRAM – U.S.A. & CANADA

Q101~Q103 3SK59 | Q104 2SC710C | Q105 IS2687 | Q151 HAI197 | Q152 MV-203 | Q201,Q205,Q213 2SK19 (Y) | Q202,Q214 2SC1047 (C) | Q203,Q208,Q215,Q231 LAI222 | Q204,Q211,Q212,Q235,Q236 IS1555 | Q206,Q207,Q216 μPC1163H | Q209,Q210,Q219,Q225,Q226,Q233,Q234 2SC829(C) | Q217 2SA842(GR or BL) | Q218 2SC1583(G or H) | Q220~Q223,Q226,Q227,Q229,Q230,Q237 20A90 | Q224 μPC555H | Q232 2SK30 | Q301 HAI1223 | Q302~Q306,Q312,Q313,Q315~Q319 2SC945 (P or Q) | Q307,Q308 20A90 | Q309 2SC945 (Q or R) | Q310,Q311 2SA842 (GR or BL) | Q314,Q320,Q322 IS1555 | Q321 NSM4558D | Q801 2DL15 | Q802,Q803 DSI30YA | Q804,Q811 WZ140 | Q805 2SD313 (D or E)



Q0219,Q225, Q233 Q234 C)

Q217 2SA842(GR or BL)

Q218 2SC1583(G or H)

Q220 ~ Q223, Q226, Q227 Q229, Q230, Q237 2DA90

Q224 μPC555H

Q232 2SK30

Q301 HAI1223

Q302~Q306, Q312, Q313, Q315~Q319 2SC945 (P or Q)

Q307, Q308 2DA90

Q309 2SC945 (Q or R)

Q310, Q311 2SA842 (GR or BL)

Q314, Q320, Q322 1SI555

Q321 NSM4558D

Q801 2DL15

Q802, Q803 DS130YA

Q804, Q811 WZ140

Q805 2SD313 (D or E)

Q806, Q815~Q818 2SC945 (Q or R)

Q807 2SD400 (E or F)

Q808, Q810 2SB544 (E or F)

Q809 WZ056

Q812, Q813, Q819 W06B

Q814 1SI555

Q901~Q904 2SK30A

Q905~Q908 2SC1756 (D or E)

Q909, Q910 ISC2471

Q911 ISC2473

QC51, QC52 2SC829(C)

QC53 HD7490

QC54~QC56 2SC945 (Q or R)

QC57, QC59 2SD227

QC58 μPD861C

QC61 1SI555

QS01~QS03 2DA90

QT01 NJM4558D

QT02, QT03 2SC1627 (S or T)

QT04 2SC1222 (F or E)

QT05, QT08, QT09, QT12 2SC945 (P or Q)

QT06, QT07 2SC829(C)

QT11 2SA733 (P or Q)

QT13, QT14, QT16, QT17 2DA90

QT15, QT18 1SI555

QY01~QY03 L.E.D

P300

P301

PS01

PY01

PZ01

PC50

PT00

P900

P800

STEREO LAMP VD01

TUNER OUT J0015

H.CENTER R005 10k

V.CENTER R004 10k

FOCUS R008 200k

BRIGHT R007 50k

OUT R002 20k

MUTING R003 20k

WIDE 0V NARROW 13V

AM

FM

WIDE

MPX FILTER

REC

FM25

QUARTZ 2

MONO

QUARTZ LOCK Q001

VD04 DOLBY

VD03 DIAL POINTER

(OPTION) DOLBY FM DECORDER

SCHEMATIC DIAGRAM – EUROPE

Q101~Q103 3SK59 | Q104 2SC710C | Q105 IS2687 | Q151 HAI197 | Q152 MV-203 | Q201, Q205, Q213 2SK19 (Y) | Q202, Q214 2SC1047 (C) | Q203, Q208, Q215, Q231 LAI222 | Q204, Q211, Q212, Q235, Q236 IS1555 | Q206, Q207, Q216 μPC1163H | Q209, Q210, Q219, Q225, Q228, Q233, Q234 2SC829 (C) | Q217 2SA842 (GR or BL) | Q218 2SC1583 (G or H) | Q220 ~ Q223, Q226, Q227 Q229, Q230, Q237 20A90 | Q224 μPC555H | Q232 2SK30 | Q301 HAI1223 | Q302~Q306, Q312, Q313, Q315~Q319 2SC945 (P or Q) | Q307, Q308 20A90 | Q309 2SC945 (Q or R) | Q310, Q311 2SA842 (GR or BL) | Q314, Q320, Q322 IS1555 | Q321 NSM4558D | Q801 2DL15 | Q802, Q803 DSI30YA | Q804, Q811 WZ140 | Q805 2SD313 (D or E) | Q806, Q815~Q818 2SC945 (Q or R) | Q8

P200 | P300 | P100 | PR00 | P900 | PT00

AM LOOP STECK ANT | STEREO LAMP | SCOPE IN | TUNER OUT | MUTING | WIDE 0V NARROW 13V

R or BL) Q218 2SC1583(G or H) Q220~Q223, Q226, Q227 Q229, Q230, Q237 2OA90 Q224 μPC555H Q232 2SK30 Q301 HAI1223 Q302~Q306, Q312, Q313, Q315~Q319 2SC945 (P or Q) Q307, Q308 2OA90 Q309 2SC945 (Q or R) Q310, Q311 2SA842 (GR or BL) Q314, Q320, Q322 IS1555 Q321 NSM4558D Q801 2DL15 Q802, Q803 DS130YA Q804, Q811 WZ140 Q805 2SD313 (D or E) Q806, Q815~Q818 2SC945 (Q or R) Q807 2SD400 (E or F) Q808, Q810 2SB544 (E or F) Q809 WZ056 Q812, Q813, Q819 W06B Q814 IS1555 Q901~Q904 2SK30A Q905~Q908 2SC1756 (D or E) Q909, Q910 ISC2471 Q911 ISC2473

QC51, QC52 2SC829(C)

QC53 HD7490

QC54~QC56 2SC945 (Q or R)

QC57, QC59 2SD227

QC58 μPD861C

QC61 IS1555

QS01~QS03 2OA90

QT01 NJM4558D

QT02, QT03 2SC1327 (S or T)

QT04 2SC1222 (F or E)

QT05, QT08, QT09, QT12 2SC945 (P or Q)

QT06, QT07 2SC829(C)

QT11 2SA733 (P or Q)

QT13, QT14, QT16, QT17 2OA90

QT15, QT18 IS1555

QY01~QY03 L.E.D

P300

P800

PY01

PZ01

PC50

PT00

STEREO LAMP Y001

TUNER OUT J005

N.CENTER R005 10k

V.CENTER R004 10k

FOCUS R008 200k

BRIGHT R007 50k

MUTING R003 20k

WIDE 0V NARROW 13V

AM

FM

WIDE

QUARTZ

REC

MPX FILTER

MONO

QUARTZ LOCK Q001

DIAL POINTER V003

L003

F801 F001 250V 630mAT

J008

J010

W001

BRN

BLU

YEL/GRN